**SERVICE MANUAL** 

Ver. 1.2 2007.07

- HCD-EC55 (US and Canadian models) and HCD-EC77/ GX99 (US and Canadian models) are the Amplifier, CD player and Tuner section in MHC-EC55/EC77/GX99.
- · HCD-EC55 (Except US and Canadian models) and HCD-EC77/GX99 (Except US and Canadian models) are the Amplifier, CD player, Tape Deck and Tuner section in MHC-EC55/EC77/GX99.



US Model Canadian Model HCD-FC55/FC77/GX99

> AEP Model HCD-EC55/EC77

UK Model HCD-EC55

E Model Australian Model HCD-EC55/EC77

Photo: HCD-EC55 (E model)

OD.	Model Name Using Similar Mechanism	NEW
CD	Base Unit Name	BU-K6BD90-WOD
Section	Optical Pick-up Name	KSM-213DCP
TAPE	Model Name Using Similar Mechanism	NEW
Section	Tape Transport Mechanism Type	CS-21SC-901TP

#### SPECIFICATIONS

#### Main unit

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION: (HCD-GX99, HCD-EC77 The United States model only)

With 8 ohm loads, both channels driven, from 120 - 10,000 Hz; 60 watts per channel minimum RMS power, with no more than 0.7% total harmonic distortion from 250 milliwarts to rated output.

With 8 ohm loads, both channels driven, from 2,000 - 13,000 Hz; 60 watts per channel minimum RMS power, with no more than 0.7% total harmonic distortion from 250 milliwatts to rated output.

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

(HCD-EC55 The United States model only)

With 6 ohm loads, both channels driven, from 120 – 10,000 Hz; 45 watts per channel minimum RMS power, with no more than 0.7% total harmonic distortion from 250 milliwatts to rated output.

#### **Amplifier section**

#### HCD-GX99

Front speaker:

RMS output power (reference):

95 W + 95 W (per channel at 8  $\Omega$ , 1 kHz, 10% THD)

95 W + 95 W (per channel at 8  $\Omega$ , 8 kHz, 10% THD)

Subwoofer: RMS output power (reference):

150 W (at 6 Ω, 80 Hz, 10% THD)

#### HCD-EC77

North American model:

RMS output power (reference):

95 W + 95 W (per channel at 8 Ω, 1 kHz, 10% THD)

High channel 95 W + 95 W (per channel at 8  $\Omega$ , 8 kHz, 10% THD)

European and Russian models:

Power output (rated): Low channel

45 W + 45 W (at 8 Ω, 1 kHz, 1% THD) High channel

45 W + 45 W (at 8 Ω, 8 kHz, 1% THD)

RMS output power (reference):

Low channel

65 W + 65 W (per channel at 8  $\Omega$ , 1 kHz, 10% THD)

High channel 65 W + 65 W (per channel at 8  $\Omega$ , 8 kHz, 10% THD)

#### Other models:

The following are measured at AC 120, 127, 220, 240 V, 50/60 Hz Power output (rated):

Low channel 50 W + 50 W (at 8  $\Omega$ , 1 kHz, 1% THD)

High channel 50 W + 50 W (at 8  $\Omega$ , 8 kHz, 1% THD)

RMS output power (reference): Low channel

70 W + 70 W (per channel at  $8 \Omega$ , 1 kHz, 10% THD) High channel

70 W + 70 W (per channel at 8  $\Omega$ , 8 kHz, 10% THD)

#### HCD-FC55

North American model:

RMS output power (reference): 65 W+ 65 W (per channel at 6  $\Omega$ , 1 kHz, 10% THD)

European and Russian models: Power output (rated): 45 W + 45 W (at 6  $\Omega$ , 1 kHz, 1% THD) RMS output power (reference): 65 W + 65 W (per channel at 6  $\Omega$ , 1 kHz, 10% THD)

The following are measured at AC 120, 127, 220, 240 V, 50/60 Hz Power output (rated): 45 W + 45 W (at 6  $\Omega$ , 1 kHz, 1% THD) RMS output power (reference):

65 W + 65 W (per channel at 6  $\Omega$ , 1 kHz, 10% THD)

#### Inputs

AUDIO IN (stereo mini jack): Sensitivity 800 mV, impedance 47 kilohms

#### Outputs

PHONES (stereo mini jack): Accepts headphones with an impedance of  $8 \Omega$  or more SPEAKER: Accepts impedance of 6 to 8  $\Omega$ 

#### **CD** player section

SUBWOOFER OUT (HCD-GX99 only) System: Compact disc and digital audio system

Laser: Semiconductor laser (λ=770 - 810 nm)

Emission duration: continuous

Frequency response: 20 Hz - 20 kHz Signal-to-noise ratio: More than 90 dB

Dynamic range: More than 88 dB

#### Tane deck section (Except for North American model)

Recording system: 4-track 2-channel, stered

#### **Tuner section**

FM stereo, FM/AM superheterodyne tuner

FM lead antenna

AM loop antenna

FM tuner section:

Tuning range
North American model: 87.5 – 108.0 MHz (100 kHz step) Other models: 87.5 – 108.0 MHz (50 kHz step) Intermediate frequency: 10.7 MHz

Continued on next page

## COMPACT DISC DECK RECEIVER

9-887-532-03 2007G16-1

Sonv Corporation **Personal Audio Division Published by Sony Techno Create Corporation** 



AM tuner section:

Tuning range

Pan-American and Australian models: 530 – 1,710 kHz (with 10 kHz tuning interval)

531 – 1,710 kHz (with 9 kHz tuning interval) European and Russian models:

531 – 1,602 kHz (with 9 kHz tuning interval) Other models:

530 – 1,610 kHz (with 10 kHz tuning interval) 531 – 1,602 kHz (with 9 kHz tuning interval)

Intermediate frequency: 450 kHz

#### General

#### Power requirements:

North American model: AC 120 V, 60 Hz European and Russian models: AC 230 V, 50/60 Hz

Australian model: AC 230 – 240 V, 50/60 Hz Mexican model: AC 127 V, 60 Hz Argentine model: AC 220 V, 50/60 Hz Korean model: AC 220 V, 60 Hz

Other models: AC 120, 220 or 230 - 240 V, 50/60 Hz, adjustable with voltage

selector

#### Power consumption:

#### HCD-GX99

USA model: 190 W Canadian model: 245 VA

HCD-EC77

USA model: 190 W Canadian model: 245 VA

European and Russian models: 140 W

0.5 W (in Power Saving Mode)

Other models: 150 W

#### HCD-EC55

USA model: 95 W Canadian model: 130 VA

European and Russian models: 95 W

0.5 W (in Power Saving Mode)

Other models: 95 W

#### Dimensions (w/h/d) (excl. speakers):

Approx. 200 × 306 × 410 mm

#### Mass (excl. speakers):

#### HCD-GX99

North American model: Approx. 6.1 kg

#### HCD-EC77

North American and European models: Approx. 6.1 kg

Other models: Approx. 6.4 kg

#### HCD-EC55

North American model: Approx. 5.0 kg Other models: Approx. 5.3 kg

Design and specifications are subject to change without notice.

#### SAFETY-RELATED COMPONENT WARNING!!

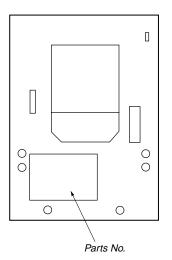
COMPONENTS IDENTIFIED BY MARK A OR DOTTED LINE WITH MARK A ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

#### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE A SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COM- POSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

#### **MODEL IDENTIFICATION**

- Back Panel -



Model	Part No.
GX99: CND model	2-319-061-0
EC55: CND model	2-893-578-0
EC55: AEP, UK model	2-893-579-0
EC55: RU model	2-893-580-0
EC55: E2 model	2-893-581-0
EC55: E51 model	2-893-582-0
EC55: MX model	2-893-583-0
EC55: AR model	2-893-584-0
EC55: SP model	2-893-586-0
EC55: AUS model	2-893-587-0
EC55: KR model	2-893-588-0
EC77: CND model	2-893-595-0
EC77: RU model	2-893-597-0
EC77: E2 model	2-893-598-0
EC77: E51 model	2-893-599-0
EC77: MX model	2-893-600-0
EC77: AR model	2-893-601-0
EC77: AUS model	2-893-604-0
EC55: US model	3-095-136-0□
EC77: AEP model	3-095-137-0□
EC77: E3 model	3-095-138-0□
GX99: US model	3-095-139-0□
EC77: US model	3-095-495-0□

#### Abbreviation

AR : Argentine model AUS: Australian model CND: Canadian model

E2 : 120 V AC area in E model E3 : 240 V AC area in E model E51 : Chilean and Peruvian models

KR: Korean model MX : Mexican model : Russian model RU SP : Singapore model

#### **TABLE OF CONTENTS**

1.	SERVICING NOTES	4	7-4.	Printed Wiring Board — BD90 Board —	33
			7-5.	Schematic Diagram — BD90 Board —	34
2.	GENERAL	6	7-6.	Printed Wiring Boards — MAIN Section —	35
			7-7.	Schematic Diagram — MAIN Section (1/2) —	
3.	DISASSEMBLY		7-8.	Schematic Diagram — MAIN Section (2/2) —	37
3-1.	Disassembly Flow	8	7-9.	Printed Wiring Board — PANEL Board —	38
3-2.	Side Panel (R), Side Panel (L)		7-10.	Schematic Diagram — PANEL Board —	39
3-3.	Top Panel Assy (Except US, CND)		7-11.	Printed Wiring Boards — KEY Section —	40
3-4.	Top Panel (US, CND)		7-12.	Schematic Diagram — KEY Section —	40
3-5.	Front Panel Assy		7-13.	Printed Wiring Board — HI-AMP Board —	41
3-6.	Mechanical Deck (Except US, CND)		7-14.	Schematic Diagram — HI-AMP Board —	42
3-7.	Belt (MAIN), Belt (R/F) (Except US, CND)		7-15.	Printed Wiring Board	
	KEY-LEFT Board			— LOW-AMP Board (EC77/GX99) —	43
	KEY-RIGHT Board, KEY-CD Board, PANEL Board		7-16.	Schematic Diagram	
	JACK Board			— LOW-AMP Board (EC77/GX99) —	44
	MAIN Board		7-17.	Printed Wiring Boards	
	CD Mechanical			— DECK Section (Except US,CND) —	45
	Optical Pick-up (KSM-213DCP), BD90 Board		7-18.	Schematic Diagram	
	Belt (DLM3A)			— DECK Section (Except US,CND) —	45
	Chassis		7-19.	Printed Wiring Board	
	PT Board (Except EC55:US, CND),			— PT Board (Except EC55: US,CND) —	46
	PT (U) Board (EC55:US, CND), Power Transformer	19	7-20.	Schematic Diagram	
3-17.	LOW-AMP Board, HI-AMP Board (EC77/GX99)			— PT Board (Except EC55: US,CND) —	46
	HI-AMP Board (EC55)		7-21.	Printed Wiring Board	
	DC Fan			— PT (U) Board (EC55: US,CND) —	47
			7-22.	Schematic Diagram	
4.	TEST MODE	21		— PT (U) Board (EC55: US,CND) —	47
5.	MECHANICAL ADJUSTMENTS	25	8.	EXPLODED VIEWS	
			8-1.	Overall Section	57
6.	ELECTRICAL ADJUSTMENTS	25	8-2.	Front Panel Section	
υ.	LEECTRICAL ADJOSTMENTS	23	8-3.	Chassis Section (EC77/GX99)	
7.	DIAGRAMS		8-4.	Chassis Section (EC55)	
		20	8-5.	Top Section (Except US, CND)	
7-1.	Block Diagram — BD/DRIVER Section —		8-6.	CD Mechanism Deck Section	62
7-2.	Block Diagram — TUNER Section —				
7-3.	Block Diagram — MAIN Section —	32	9.	ELECTRICAL PARTS LIST	63

## SECTION 1 SERVICING NOTES

#### **CAUTION**

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

#### Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

#### Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

#### SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

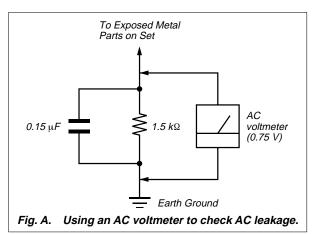
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage.

Check leakage as described below.

#### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

- A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
- A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
- 3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior. (Except for Korean model)



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

## NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

#### NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

## LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveforms is output three times.

#### **UNLEADED SOLDER**

Boards requiring use of unleaded solder are printed with the leadfree mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

#### : LEAD FREE MARK

Unleaded solder has the following characteristics.

 Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.

Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.

Soldering irons using a temperature regulator should be set to about 350  $^{\circ}\mathrm{C}.$ 

Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

Strong viscosity

Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

Usable with ordinary solder
 It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

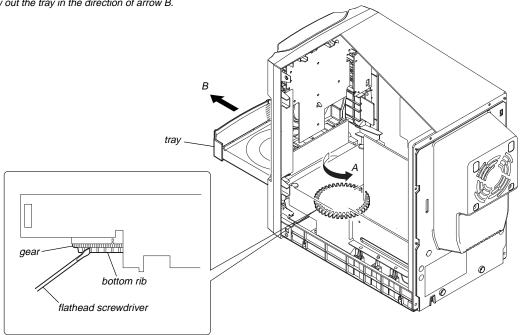
#### CAUTION

#### When carrying this system

- 1 Remove all discs to protect the CD mechanism.
- 2 Hold down CD ►II (play/pause) on the unit, and press I/ Uniti "STANDBY" appears.
- 3 After "LOCK" appears, unplug the power cord.

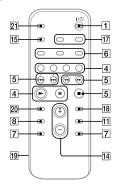
#### HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

Turn the bottom rib (not the gear) with a flathead screwdriver in the direction of arrow A, and draw out the tray in the direction of arrow B.



## **Basic Operations** 4 5 -[7] 13 12 9 11

\* Except for North American model



#### Before using the system

#### To use the remote

Slide and remove the battery compartment lid [19], and insert the two R6 (size AA) batteries (supplied),  $\bigoplus$  side first, matching the polarities shown below.



- Notes on using the remote

  With normal use, the batteries should last for about six months.

  Do not mix an old battery with a new one or mix different types of batteries.
- usucries.

  "If you do not use the remote for a long period of time, remove the batteries to avoid damage from battery leakage and corrosion.

  Batteries installed devices shall not be exposed to excessive heat such as sunshine, fire or the like.

#### To set the clock

- 1 Turn on the system. Press I/ (on/standby) 1.
- 2 Select the clock set mode.

Press CLOCK/TIMER SET 17 on the remote. If the current mode appears on the display, press ◄◄/►>■

5 on the remote repeatedly to select "CLOCK," and then press ENTER 18 on the remote.

3 Set the time.

Press [44] [5] on the remote repeatedly to set the hour, and then press ENTER [8] on the remote. Use the same procedure to set the minutes. The clock settings are lost when you disconnect the power cord or if a power failure occurs.

#### Selecting a music source

Press the following buttons (or press FUNCTION  $\boxed{\textbf{4}}$ 

To select	Press
CD	CD 4 on the remote.
Tuner	TUNER/BAND 4.
Tape <sup>1)</sup>	TAPE 4 on the remote.
Component <sup>2)</sup> (connected using an audio cord)	FUNCTION repeatedly (or AUDIO IN <sup>3)</sup> on the remote) [4] until "AUDIO IN" appears.

<sup>1)</sup> Except for North Amer

- \*\* Except 10: FOUTH AMERICAN MODEL.

  If the component has the AVIJ.S (Automatic Volume Limiter System) or BASS BOOST function, turn off the function to avoid distorted sound from the speakers.

  North American model only.

#### Adjusting the sound

#### To adjust the volume

Press VOLUME +/- on the remote (or turn the VOLUME control on the unit) 14.

.o aaa a soama emeet		
То	Press	
Generate a more dynamic sound (Dynamic Sound Generator X-tra)	DSGX 8 on the unit.	
Cat the cound offeet	EO 0	

#### To turn on the subwoofer (HCD-GX99 only)

To turn on the subwoorer (mu-uas unity)

Press SUBWOOFER ON/OFF in the lower part of the subwoofer until the indicator on the subwoofer lights up.

7 a algust the sound output level for the subwoofer. The subwoofer the SUBWOOFER LEVEL in the lower part of the subwoofer. Once you have made the adjustment, the overall sound level can be adjusted using VOLUME on the entit of the unity file.

#### Playing a CD/MP3 disc

- 1 Select the CD function.
- Press CD on the remote (or FUNCTION repeatedly)

  [4].
- 2 Place a disc.

Press (open/close) (9) on the unit, and place a disc with the label side up on the disc tray. To place additional discs, slide the disc tray with your finger as shown below.

To close the disc tray, press (open/close) 
on the

Do not force the disc trav closed with your finger, as this may damage the unit.



3 Select a disc.

If the discs are currently stopped, press DISC SKIP on the remote (or DISC SKIP/EX-CHANGE on the unit)  $\boxed{11}$ . To change discs while in other functions, press DISC 1 – 3  $\boxed{10}$  on the unit.

4 Start playback.

Press (play) (or CD | (play/pause) on the unit)

To exchange other discs during playback, press DISC SKIP/EX-CHANGE [1] on the unit.

То	Press
Pause playback	II (pause) on the remote (or CD ►II on the unit) 4. To resume play, press the button again.
Stop playback	■ (stop) 5.
Select a folder on an MP3 disc	<b>+</b> /- <b>7</b> .
Select a track or file	on the remote ( □ □ √ ▷ □ □ on the unit) 5.
Find a point in a track or file	Hold down ◀◀/▶▶ (rewind/fast forward) [5] during playback, and release the button at the desired point.
Select Repeat Play	REPEAT 6 on the remote repeatedly until "REP" or "REP1" appears.

To change the play mode
Press PLAY MODE [6] repeatedly while the player is
stopped. You can select normal play (no display for all
discs or "1 DISC" for a disc or "1 for all MP3 files in the folder on the disc), shuffle play ("SHUF" for all discs shuffle, "1 DISC SHUF" for one disc shuffle or "

SHUF\*" for folder shuffle), or program play

("PGM").

When playing a CD-DA disc, (SHUF) Play performs the same operation as 1 DISC (SHUF) Play.

- Notes on Repeat Play

   All tracks or files on a disc are played repeatedly up to five times.

   You cannot select "REP" and "SHUF" (all discs shuffle) at the same
- "REP1" indicates that a single track or file is repeated until you stop

### Notes on playing MP3 discs • Do not save other to

- Do not save other types of tracks or files or unnecessary folders on a disc that has MP3 files. Polders that have no MP3 files are skipped.

  NP3 files are played back in the order that they are recorded onto the disc.

- the disc.

  "the system can only play MP3 files that have a file extension of
  "MP3".

  If there are files on the disc that have the "MP3" file extension,
  but that are not MP3 files, the unit may produce noise or may
  malfunction.
- The maximum number of:

- The maximum number of:
  —loadable resions on a single dus is 10.
  —folders is 150 (including the root folder).
  —MP3 files is 255.
  —MP3 files and folders that can be contained on a single disc is 300.
  —MP3 files and folders that can be contained on a single disc is 300.
  —MP3 files and folders that can be contained on a single disc is 300.
  —Compatibility with all MP3 encoding/writing software, recording device, and recording media cannot be guaranteed. Incompatible MP3 discs may produce noise or interrupted audio or may not play at all.

- Notes on playing multisession discs
  If the disc begins with a CD-DA (or MP3) session, it is recognized as a CD-DA (or MP3) disc, and playback continues until another
- session is encountered.

   A disc with a mixed CD format is recognized as a CD-DA (audio) disc.

#### Listening to the radio

- 1 Select "FM" or "AM."
- Press TUNER/BAND 4 repeatedly.
- 2 Select the tuning mode
- Press TUNING MODE 6 repeatedly until "AUTO" appears.
- 3 Tune in the desired station.

Press +/- on the remote (or TUNING + or - on the unit) 5.

Scanning stops automatically when a station is tuned in, and then "TUNED" and "STEREO" (for stereo programs) appear.



### To stop automatic scanning Press ■ (stop) 5.

To tune in a station with a weak signal If "TUNED" does not appear and the scanning does not stop. press TUNING MODE [6] repeatedly until "MANUAL" appears and press +/- on the remote (or TUNING + or – on the unit) [5] repeatedly to tune in the desired station.

#### To reduce static noise on a weak FM stereo station

Press FM MODE 6 on the remote repeatedly until "MONO" appears to turn off stereo reception

#### Playing a tape (Except for North American model)

- 1 Select a tape function.
- Press TAPE on the remote (or FUNCTION on the unit repeatedly) 4.

Press (stop/eject) 3 on the unit, and insert the tape into the cassette holder. Make sure there is no slack in the tape to avoid damaging the tape or the tape deck.

3 Start playback

Press (play) 3 on the unit

То	Press
Pause playback	II (pause) 3 on the unit. To resume play, press the button again.
Stop playback	■▲ (stop/eject) 3 on the unit.
Rewind or fast forward*	✓→ 3 on the unit.

\* Be sure to press ■ (stop/eject) 3 on the unit after the tape has

**Note**Do not turn off the system during playback or recording

#### Changing the display

Changing the display			
То	Press		
Change information on the display*	DISPLAY 15 repeatedly when the system is turned on.		
Change Display mode (See below.)	DISPLAY 15 repeatedly when the system is turned off.		

\* For example, you can view CD/MP3 disc information, such as the track or file number or folder name during normal play, or the total playing time while the player is stopped.

The system offers the following display modes

Display mode	When the system is off1),
Power Saving Mode <sup>2)</sup>	The display is turned off to conserve power. The timer and clock continue
Wode	to operate.
Clock <sup>3)</sup>	The clock is displayed.

- The STANDBY indicator 16 on the unit lights up when the system is
- You cannot set the clock in Power Saving Mode
- 3) The clock display automatically turns to Power Saving Mode after

- Notes on the display information

  \*Characters that cannot be displayed appear as "."

  \*The following are not displayed;

  -total playing time for an MP3 disc.

  -remaining playing time for an MP3 disc.

  \*The following are not displayed correctly;

  -elapsed playing time of an MP3 file encoded using a VBR (variable bit rate).

  \*Folder and file naroses than 2 or or of the played correctly;

  -folder and file naroses than 2 or or of the played correctly;
- bit rate), """ will see a rooted using a VBR (variable bit rate).

  -folder and file names that do not follow either the ISO9660 Level 1, Level 2 or follet in the expansion format.

  \*The following are displayed:

  -total playing time for a CD-DA disc when the play mode is "1 DISC."

#### Using optional audio components

**To connect an optional headphones** Connect headphones to the PHONES jack 12 on the

#### To connect an optional component

Connect additional audio source components to the AUDIO IN jack 13 on the unit using an analog audio cord (not supplied). The plant is a supplied to the cord (not supplied). cord (not supplied). Turn down the volume on the system, and then select the AUDIO IN function.

#### **Other Operations**

#### Creating your own CD program (Program Play)

Use buttons on the remote to create your own program.

- 1 Press CD 4 to select the CD function.
- 2 Press PLAY MODE 6 repeatedly until "PGM" appears while the player is stopped.
- 3 Press DISC SKIP 11 to select a disc.
- 4 Press I◄◀♪▶►! (or I६<↑/>
  | In the unit) | Frepatedly until the desired track number appears.

  When programing MP3 files, press 1 +/- | Trepatedly to select the desired folder, and then select the desired file.

Selected track or file number



- 5 Press ENTER 18 to add the track or file to the program.
- **6** Repeat steps 3 through 5 to program additional tracks or files, up to a total of 25 tracks or files.
- To play your program of tracks or files, press (or CD >11 on the unit) 4.

The program remains available until you open the disc tray. To play the same program again, select the CD function, and press ► (or CD ► II on the unit) 4.

**To cancel Program Play**Press PLAY MODE [6] repeatedly until "PGM" disappears while the player is stopped.

## To delete the last track or file of the program Press CLEAR ② on the remote while the player is stopped.

## To view program information, such as total track number of the program Press DISPLAY 15 repeatedly.

#### **Presetting radio stations**

You can preset your favorite radio stations and tune them in instantly by selecting the corresponding preset number.

- 1 Tune in the desired station (See "Listening to the
- 2 Press TUNER MEMORY 6 on the remote



- 3 Press +/- (or TUNING + or on the unit) 5 repeatedly to select your desired preset number If another station is already assigned to the selected preset number, the station is replaced by the new
- 4 Press ENTER 18 on the remote
- 5 Repeat steps 1 through 4 to store other stations. You can preset up to 20 FM and 10 AM stations. The preset stations are retained for about half a day even if you disconnect the power cord or if a power failure
- To call up a preset radio station, press TUNING MODE [6] repeatedly until "PRESET" appears, and then press +/- (or TUNING + or on the unit) [5] repeatedly to select the desired preset number.

#### Recording onto a tape (Except for North American model)

Use a TYPE I (normal) tape only

You can record just the portions you like from a sound source, including connected audio components.

Use buttons on the unit to control tape recording.

- Insert a recordable tape into the cassette holder with the side you want to record facing up.
- 2 Prepare the recording source.

Select the desired source to record. Place the disc you want to record and press DISC SKIP/EX-CHANGE 11 to select a disc.

When recording a folder from an MP3 disc, press PLAY MODE [6] repeatedly to select "\(^{\mathbb{L}}\_1\)" and then press \(^{\mathbb{L}} + /- [7]\) repeatedly to select the desired folder.

To record only your favorite CD tracks or MP3 files in your desired order, perform steps 2 to 5 of "Creating your own CD program."

3 Start recording.
Press ● (record) 3, and then start playing the

desired recording source.
The CD starts playing automatically after 10 seconds have passed.

If there is noise while recording from the tuner reposition the appropriate antenna to reduce the

While recording, you cannot listen to other sources.

### To stop recording Press ■▲ ③.

Tip
We recommend that you press ■ ③ first, and then press ■ △ ③ to avoid noise being recorded when you stop recording

#### Using the timers

The system offers two timer functions. If you use both timers, the Sleep Timer has priority.

Sleep Timer:
You can fall asleep to music. This function works even if the clock is not set.
Press SLEEP [27] on the remote repeatedly. If you select

"AUTO," the system automatically turns off after the current disc or tape stops or in 100 minutes.

If the tape deck is still playing or recording at the set time, the system turns off after the tape deck stops.

Play Timer: You can wake up to CD or tuner at a preset time

Use buttons on the remote to control the Play Timer Make sure you have set the clock.

1 Prepare the sound source.

Prepare the sound source, and then press VOLUME +/- [4] to adjust the volume.

To start from a specific CD track or MP3 file, create your own CD program.

- 2 Press CLOCK/TIMER SET 17.
- 3 Press ► 5 repeatedly to select "PLAY," and then press ENTER 18.
- "ON TIME" appears, and the hour indication flashes.
- 4 Set the time to start playing.

Press I◀◀/▶▶ [5] repeatedly to set the hour, and then press ENTER [6].

The minute indication flashes. Use the procedure above to set the minutes.

- 5 Use the same procedure as in step 4 to set the time to stop playing.
- 6 Select the sound source.

Press | ◀ / ▶ 1 [5] repeatedly until the desired sound source appears, and then press ENTER [8]. The display shows the timer settings.

7 Press I/🖰 🔳 to turn off the system. If the system is on at the preset time, the Play Timer will not play.

To activate or check the timer again Press CLOCK/TIMER SELECT [1], press ◄◄/▶► [3] repeatedy until "PLAY SEL" appears, and then press ENTER [8].

**To cancel the timer**Repeat the same procedure as above until "OFF" appears, and then press ENTER [18].

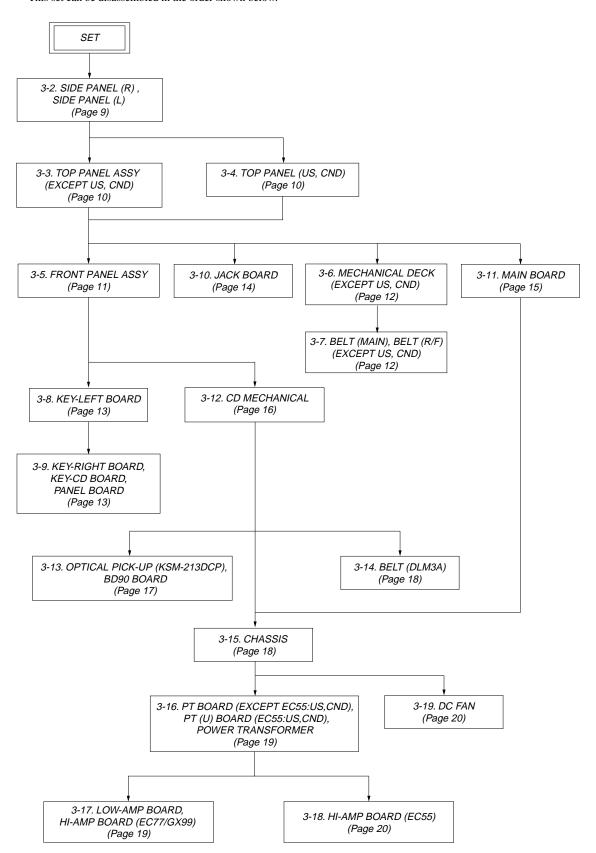
#### To change the setting

Tip
The Play Timer setting remains as long as the setting is not canceled

## SECTION 3 DISASSEMBLY

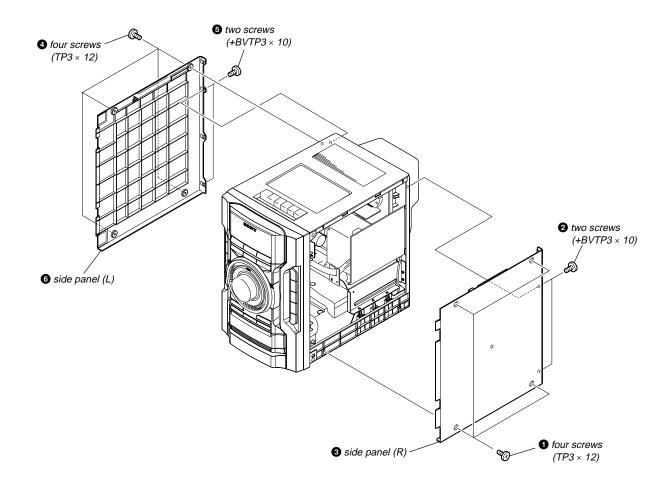
#### 3-1. DISASSEMBLY FLOW

• This set can be disassembled in the order shown below.

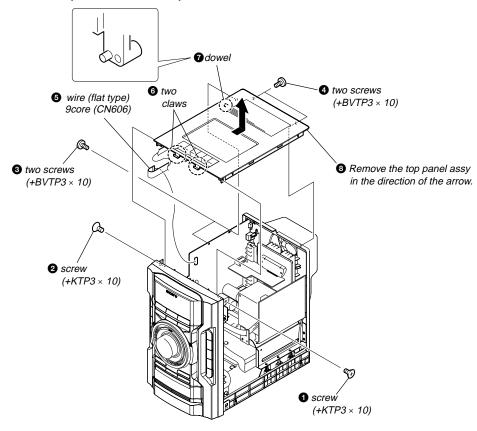


**Note:** Follow the disassembly procedure in the numerical order given.

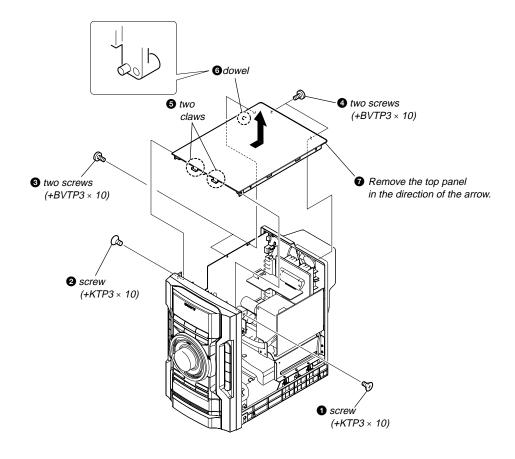
### 3-2. SIDE PANEL (R), SIDE PANEL (L)



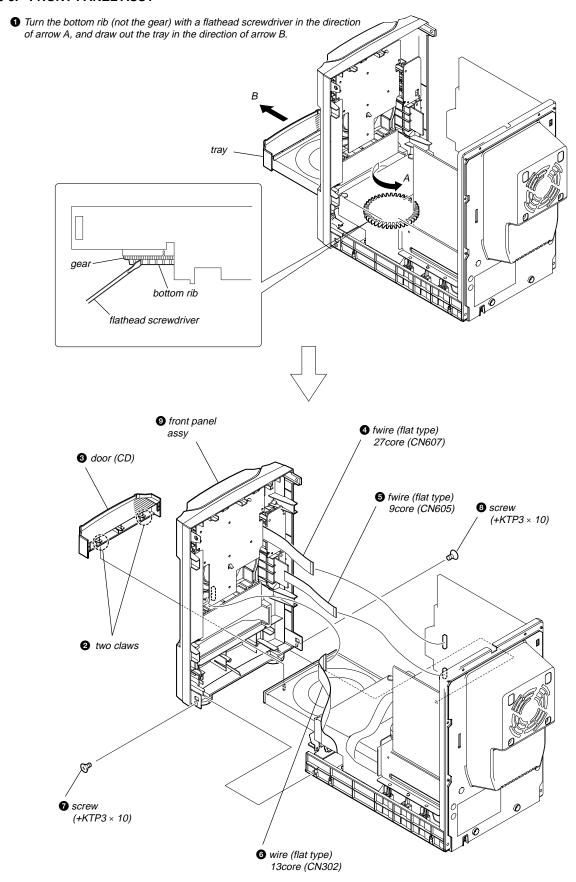
### 3-3. TOP PANEL ASSY (EXCEPT US, CND)



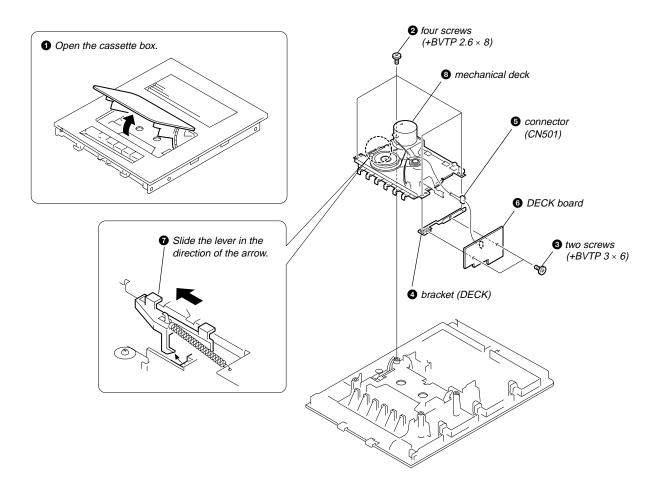
### 3-4. TOP PANEL (US, CND)



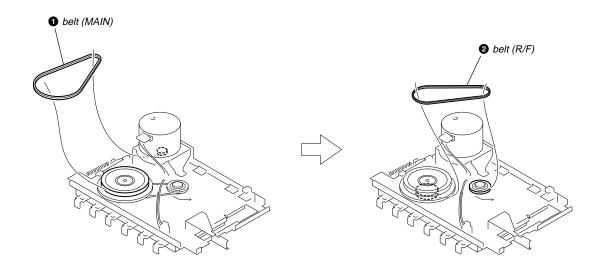
#### 3-5. FRONT PANEL ASSY



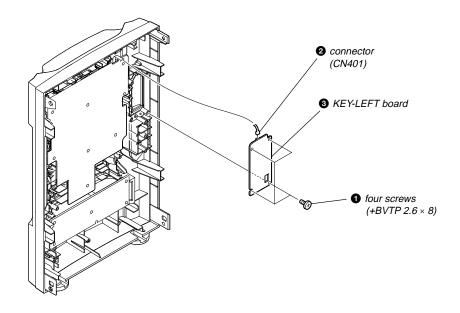
### 3-6. MECHANICAL DECK (EXCEPT US, CND)



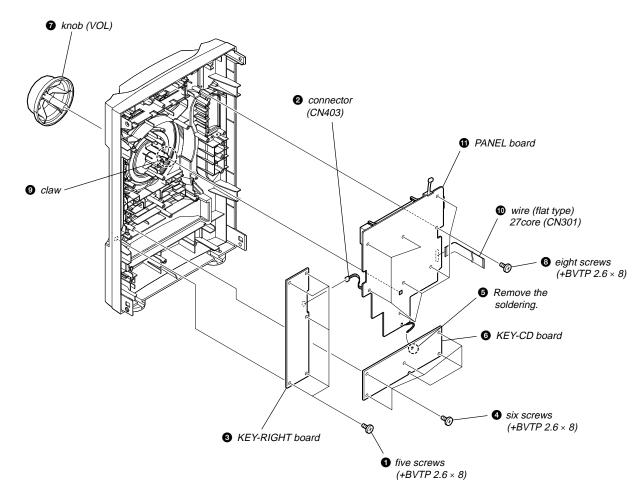
### 3-7. BELT (MAIN), BELT (R/F) (EXCEPT US, CND)



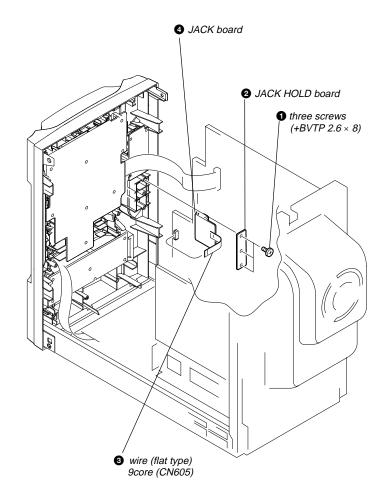
#### 3-8. KEY-LEFT BOARD



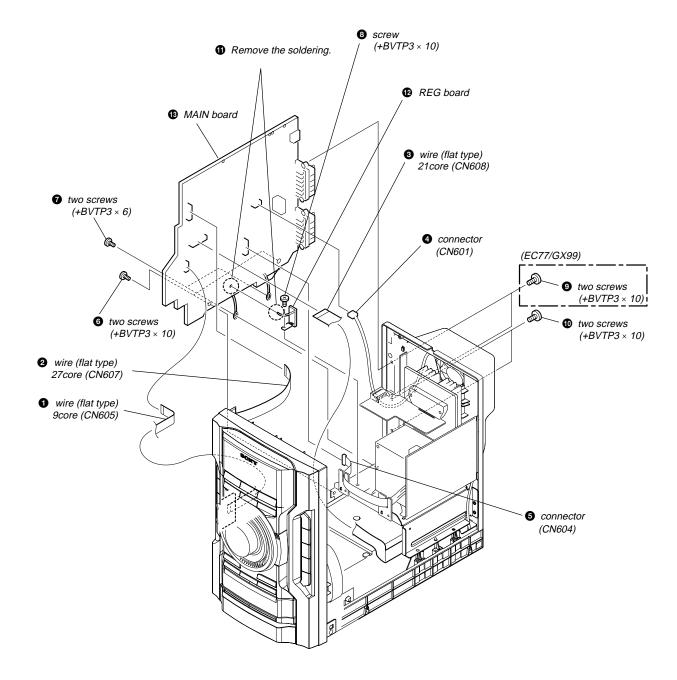
### 3-9. KEY-RIGHT BOARD, KEY-CD BOARD, PANEL BOARD



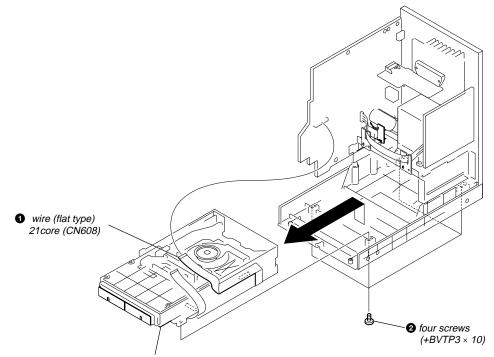
#### 3-10. JACK BOARD



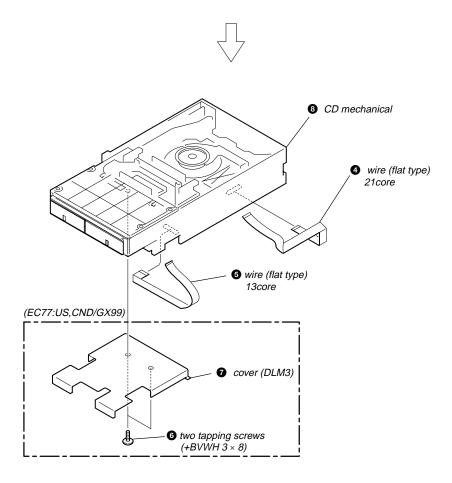
#### 3-11. MAIN BOARD



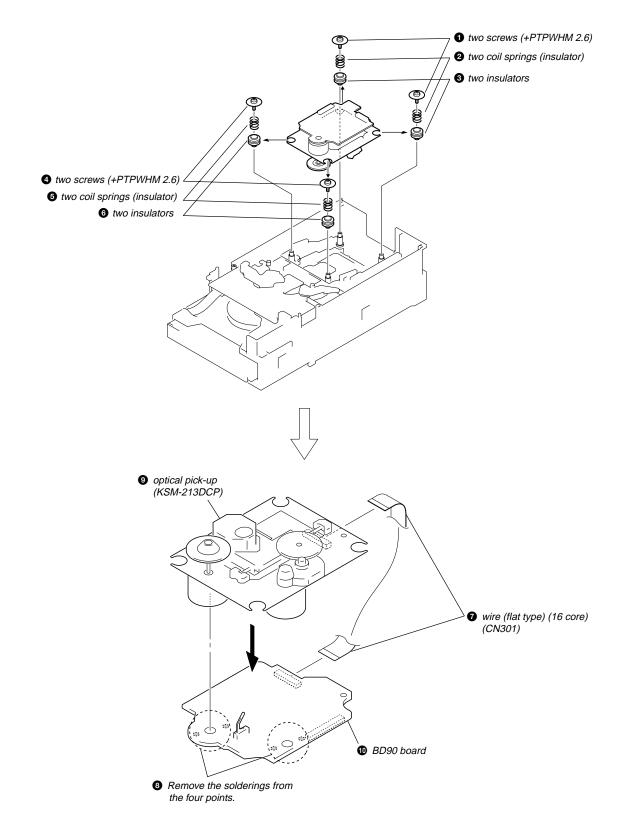
#### 3-12. CD MECHANICAL



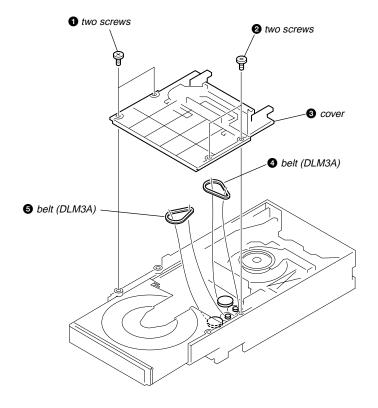
3 Remove the CD mechanical in the direction of the arrow.



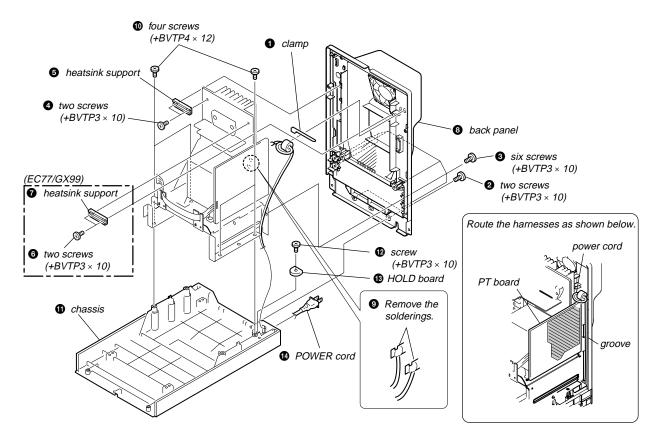
### 3-13. OPTICAL PICK-UP (KSM-213DCP), BD90 BOARD



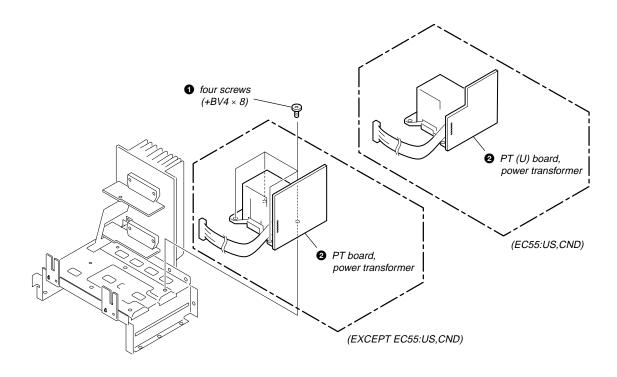
#### 3-14. BELT (DLM3A)



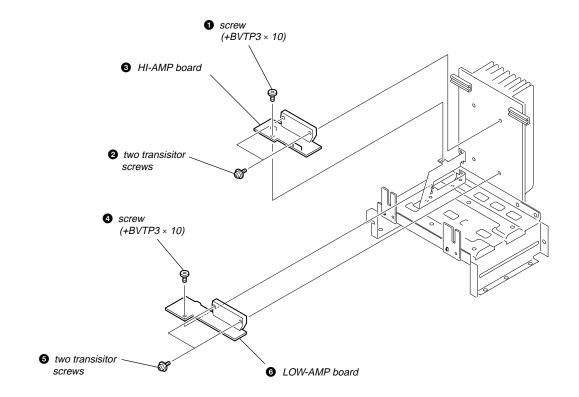
#### **3-15. CHASSIS**



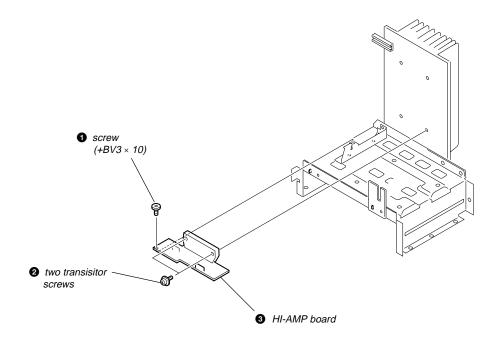
### 3-16. PT BOARD (EXCEPT EC55:US, CND), PT (U) BOARD (EC55:US, CND), POWER TRANSFORMER



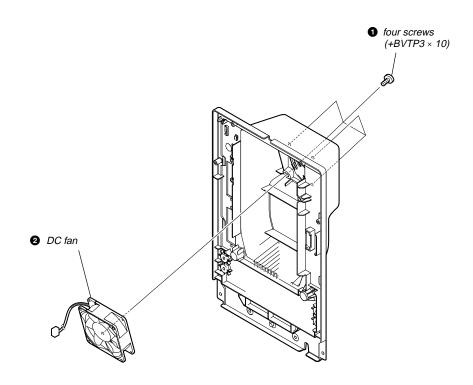
#### 3-17. LOW-AMP BOARD, HI-AMP BOARD (EC77/GX99)



### 3-18. HI-AMP BOARD (EC55)



#### 3-19. DC FAN



## SECTION 4 TEST MODE

#### [MC COLD RESET]

The cold reset clears all data including preset data stored in the memory to initial conditions. Execute this mode when returning the set to the customer.

#### **Procedure:**

- In the standby status, press the button to turn the power on.
- 2. Press three buttons of PLAY MODE/TUNING MODE, FUNCTION and at last 1/0 simultaneously.
- 3. When "RESET" appears, the machine enters standby status.

#### [PANEL TEST MODE] Enter The Panel Test Mode

#### **Procedure:**

- 1. In the standby status, press the \( \bigcup \bigcup \) button to turn the power on.
- Press three buttons of DISPLAY, , and TUNER/BAND simultaneously.
- When the panel test mode is activated, LEDs and segments of LCD are all turned on.

#### **Version Check**

#### Procedure:

- In the panel test mode (all LEDs and segments of LCD are turned on), press the FUNCTION button.
- On the LCD, date and version are displayed "xxxxxxxx". For example, "0904V014".
- 3. From this status, press the TUNER/BAND button, and the destination is displayed. For example, "ER NA" or "ER E2"
- To release from this mode, press three buttons of DISPLAY.
   and TUNER/BAND simultaneously.

#### [CD REPEAT 5 LIMIT CANCEL MODE]

Number of repeats for CD playback is 5 times when the repeat mode is "REPEAT". This mode enables CD to repeat playback for limitless times.

#### **Procedure:**

- 1. Press the 1/0 button to turn the power on.
- 2. Press the FUNCTION button to select CD function.
- 3. Press three buttons of CD ►II, DSGX, and DISPLAY simultaneously.
- It enters the CD repeat 5 limit cancel mode and displays "NO LIMIT"
- To release this mode, press the button to turn the power off.

#### [CD SHIP MODE]

This mode can run the CD sled motor optionally. Use this mode, for instance, when cleaning the optical pick-up.

#### **Procedure:**

- 1. Press the 1/0 button to turn the power on.
- 2. Press the FUNCTION button to select CD function.
- 3. Press two buttons of CD ► and 1/ simultaneously.
- 4. Set to the CD ship mode. (chucking on)
- 5. After blink "STANDBY", "LOCK" is displayed, disconnect the AC plug.

#### [CD SLOT LOCK]

This mode is for the antitheft of CD disc in shop. (not for transport) **Procedure:** 

- 1. Press the  $\boxed{I/\bigcirc}$  button to turn the power on.
- 2. Press the FUNCTION button to select CD function.
- Insert a disc.
- While pressing the button, press the button for more 5 seconds.
- The message "LOCKED" is displayed and the disc slot is locked. (Even if exiting from this mode, the disc slot is still locked)
- If press the button to eject the disc, the message "LOCKED" is displayed and can not eject the disc.
- 7. To release this lock, while pressing the button, press the button for 5 seconds again.
- The message "UNLOCKED" is displayed and the disc slot is unlocked.

#### [CD POWER MANAGE]

This mode is for switch the CD power supply on/off. Even if this state pulls out AC plug, it is held.

#### **Procedure:**

- 1. Press the 1/0 button to turn the power on.
- 2. Press the FUNCTION button to select CD function.
- 3. Press the 1/0 button again to turn the power off (standby).
- 4. After pressing the DISPLAY button, while pressing the button, press the 

  √∪ button.
- It turns power on and display "CD POWER", then display "ON" or "OFF".

## [CHANGE-OVER THE AM TUNING INTERVAL] (Except European and Russian models)

The AM tuning interval can be changed over 9 kHz or 10 kHz. **Procedure:** 

- 1. Press the 1/0 button to turn the power on.
- 2. Press the TUNER/BAND button to select TUNER (AM) function.
- 3. Press the 1/0 button again to turn the power off (standby).
- 4. After pressing the DISPLAY button, while pressing the TUNING+▶▶▷□ button, press the \(\begin{align\*} \begin{align\*} \begi
- It turns power on and display "9k STEP" or "10k STEP", and thus the tuning interval is changed over.

#### [CD SHIP AND COLD RESET]

#### Procedure:

- 1. Press the 1/0 button to turn the power on.
- 2. Press the FUNCTION button to select CD function.
- Press three buttons of PLAY MODE/TUNING MODE | , CD ►III and I/O simultaneously.
- After blink "STANDBY", "RESET" is displayed, disconnect the AC plug.

#### [CD SERVO TEST MODE]

This mode can check the servo system operations of the optical pick-up system (= optical unit + BD board).

**Note1:** Do not enter the [CD SERVO TEST MODE] while any other test mode is in progress.

**Note2:** Do not enter any other test mode while the [CD SERVO TEST MODE] is in progress.

#### How to Enter the CD Servo Test Mode

#### **Procedure:**

- 1. Press the 1/0 button to turn the power on.
- 2. Press the FUNCTION button to select CD function.
- Press three buttons of CD ►II, PLAY MODE/TUNING MODE and DISPLAY simultaneously.
- 4. It enters the CD servo test mode and displays "BDT S CU".

## How to Exit from the CD Servo Test Mode Procedure:

- Press three buttons of CD►II PLAY MODE/TUNING MODE and DISPLAY simultaneously.
- It exits from the CD Servo Test Mode and returns to the ordinary CD function.

#### **Key Operation:**

□+,□-: Use these keys to move between the five modes contained in the CD Servo Test Mode, that are the S-Curve Mode, the RAM Read Mode, the RAM Write Mode, the Command Out Mode and the Error Rate Mode as described below. Also, use these keys to move between the menus within the respective five modes. When □+ is pressed, the screen advances to the next menu or to the next mode. When □- is pressed, the screen returns back to the previous menu or to the previous mode. Use these keys also to increase or decrease the numeric value when changing the numeric value. Pressing □+ increases the value and pressing □- decreases the value.

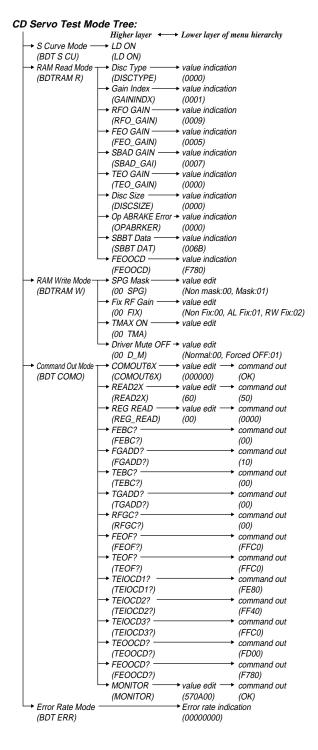
DSGX], EQ: Use these keys to move between the different layers of the hierarchy of the CD Servo Test Mode shown below. Press DSGX to move down to the lower layer, and press EQ to move up to the higher layer.

#### 

Use these keys to move the cursor to the right digit or to the left digit in the six-digit number, when changing the numeric value.

Press TUNING+▶▶▷□ to move the cursor to the right, and press □<□<□ -TUNING to return the cursor to the left.

FUNCTION: Use this key to execute Command Out in the Command Out Mode.



#### [CD SERVICE MODE]

This mode can move the SLED of the optical pick-up, and also can turn the optical pick-up laser power on and off.

#### **Procedure:**

- 1. Press the 1/0 button to turn the power on.
- Press three buttons of CD ►II, +, and DISPLAY simultaneously.
- 4. It enters the CD service mode and displays "SERVICE"
- To exit from this mode, press three buttons of CD ►II, + and DISPLAY simultaneously.

**Key Operation:** 

TUNING+▶▶Ы), Ы<

Use these keys to move the SLED. When TUNING+▶▶▷□ is pressed in this mode, the SLED moves to outer circumference and the message "SLED OUT" is displayed.

When IMM -TUNING is pressed in this mode, the SLED moves to inner circumference and the message "SLED IN" is displayed.

#### PLAY MODE/TUNING MODE:

Use this key to turn the optical pick-up laser power on and off. When the laser power is turned on, the message "LD ON" is displayed. When the laser power is turned off, the message "LD OFF" is displayed.

#### [CD ERROR CODE]

The past errors of the CD mechanism (CDM) are displayed as the CDM Errors, and those of the optical pick-up system (= optical unit + BD board) are displayed as the BD Errors as shown below.

#### **Procedure:**

- 1. Press the 1/0 button to turn the power on.
- 2. Press the FUNCTION button to select CD function.
- Press three buttons of CD ►II , and DISPLAY simultaneously.
- Then, the CDM error code is displayed as "M0xxxxxx" (x means hexadecimal number) on the LCD screen as shown below

- 7. To exit from this mode, press the 1/6 button to turn the power off.

#### Contents of "CDM Errors"

Error display example

M <u>0 FF 11 42</u> 1 2 3 4

- ① It indicates the error history number 0 to 9: The error code number 0 indicates the newest error.
- ② It indicates whether the CDM error occurs in the normal operations or during the initialization operation.

FF : The error has occurred in the normal operations

Other than FF : The error has occurred during the initialization operation.

- ③ It indicates the processing during which the trouble has occurred.
  - 01: The disc EJECT processing is in progress.
  - 02: The disc INSERTION-WAITING processing is in progress.
  - 03: Processing of the disc INSERTION-REQUEST for the upper CD tray is in progress.
  - 04: Processing of the disc EJECTION-REQUEST for the upper CD tray is in progress.
  - 05: The disc pulling-in operation is in progress.
  - 06: The disc chucking processing is in progress.
  - 07: The disc re-chucking processing is in progress.
  - 08: The disc chucking-release completion operation is in progress.
- 4 It indicates the operation during which the trouble has occurred.

00 : Waiting for the operation.

 $10\ to\ 13$  : The disc EJECT operation is in progress.

20 : The disc pulling-in operation is in progress.

30 : The disc chucking-release operation is in progress.

40 to 43: The disc EJECT operation due to error is in progress.

#### Contents of "BD Errors"

Error display example

D 0 02 09 01

1234

① It indicates the error history number 0 to 9: The error code number 0 indicates the newest error.

- 2 It indicates the error content
  - 01: The focus servo cannot lock-in.
  - 02: GFS is no good (NG).
  - 03: The startup time exceeds the specified period of time (time over)
  - 04: The focus servo is unlocked continuously.
  - Q code cannot be obtained within the specified period of time.
  - 06: The tracking servo cannot lock-in.
  - 07: Blank disc

- It indicates the on-going processing of optical pick-up system
   (= optical unit + BD board) when the trouble has occurred.
  - 01: The CD SHIP mode processing is in progress.
  - 02: The POWER OFF processing is in progress.
  - 03: The INITIALIZE processing is in progress.
  - 04: The optical pick-up system (= optical unit + BD board) is in the stop state.
  - 05: The STOP operation is in progress.
  - 06: The startup processing is in progress.
  - 07: The TOC read-in processing is in progress.
  - 08: The SEARCH operation is in progress.
  - 09: The PLAY operation is in progress.
  - 0A: The PAUSE operation is in progress.
  - 0B: The PLAY MANUAL SEARCH operation is in progress.
  - OC: The PAUSE MANUAL SEARCH operation is in progress.
- 4 It indicates the operation that is being processed when the trouble has occurred.
  - It indicates the step number of each processing specified by
  - ③. Because the numbers of steps are different in each processing, this number is different in each processing.

## SECTION 5 MECHANICAL ADJUSTMENTS

# HCD-EC55/EC77/GX99 SECTION 6 ELECTRICAL ADJUSTMENTS

#### Precaution

 Clean the following parts with a denatured-alcohol-moistened swab :

record/playback head pinch roller erase head rubber belts capstan idlers

- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
- 3. Do not use a magnetized screwdriver for the adjustments.
- 4. After the adjustments, apply suitable locking compound to the parts adjusted.
- 5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

#### • Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102AS	2.0 – 8.0 mN • m (20 to 80 g • cm) (0.28 – 1.12 oz • inch)
FWD back tension	CQ-102C	0.15 – 0.6 mN • m (1.5 to 6 g • cm) (0.021 – 0.083 oz • inch)
FF	CQ-201AS	5 – 17.7 mN • m (50 to 177 g • cm) (0.7 – 2.48 oz • inch)
REW	CQ-201B	5 – 17.7 mN • m (50 to 177 g • cm) (0.7 – 2.48 oz • inch)

#### • Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 80 g (more than 2.82 oz)

#### **DECK SECTION** (EXCEPT US, CND)

0 dB=0.775 V

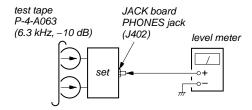
- Demagnetize the record/playback head with a head demagnetizer.
- 2. Do not use a magnetized screwdriver for the adjustments.

#### Test Tape

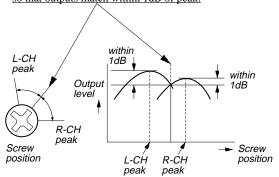
Tape	Signal	Used for
P-4-A063	6.3 kHz, -10 dB	Azimuth Adjustment

## RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT Procedure:

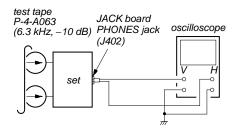
1. Mode: Playback

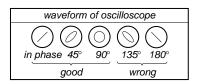


Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.



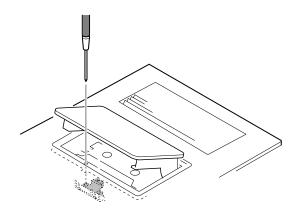
3. Mode: Playback





4. After the adjustments, apply suitable locking compound to the pats adjusted.

#### Adjustment Location: Record/Playback/Erase Head

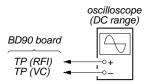


#### CD SECTION

#### Note:

- 1. CD Block is basically constructed to operate without adjustment.
- 2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
- 3. Use an oscilloscope with more than  $10 \text{ M}\Omega$  impedance.
- Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
- 5. Check the focus bias check when optical pick-up block is replaced.

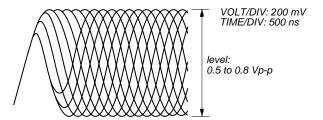
#### **FOCUS BIAS CHECK**



#### **Procedure:**

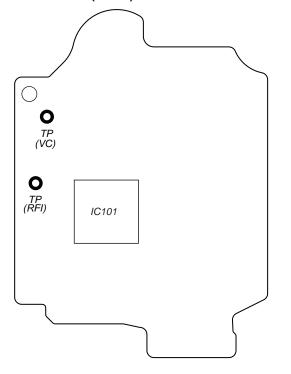
- Connect oscilloscope to TP (RFI) and TP (VC) on the BD90 board.
- 2. Press the (CD) button to turn the power ON, and press the (CD) button to open the CD disc tray.
- 3. Set disc (YEDS-18) on the tray and press the CD ►II button to playback.
- 4. Confirm that oscilloscope waveform is as shown in the figure below. (eye pattern)

A good eye pattern means that the diamond shape ( $\Diamond$ ) in the center of the waveform can be clearly distinguished.



#### **Checking Location:**

- BD90 Board (Side B) -



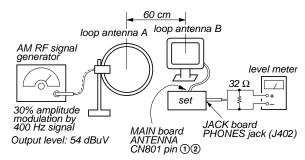
#### TUNER SECTION

 $0 dB=1 \mu V$ 

### [AM]

**Setting:** 

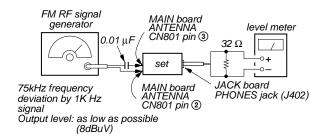
FUNCTION: TUNER TUNER/BAND button: AM

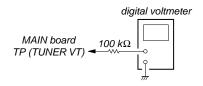


### [FM]

**Setting:** 

FUNCTION: TUNER TUNER/BAND button: FM





Repeat the procedures in each adjustment several times.

AM FREQUENCY COVERAGE ADJUSTMENT				
(US, Canadian, Australian models)				
Adjustment Part	Frequency Display	Reading on Digital Voltmeter		
L801	530 kHz	1.5 ± 0.1 V		
Confirmation	1,710 kHz	8 ± 0.5 V		

AM FREQUENCY COVERAGE ADJUSTMENT (Other models)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L801	531 kHz	$1.5 \pm 0.1 \text{ V}$
Confirmation	1,602 kHz	$7.2 \pm 0.5 \text{ V}$

AM TRACKING ADJUSTMENT (US, Canadian, Australian models)		
Adjust for a maximum reading on level meter		
L805	530 kHz	

AM TRACKING ADJUSTMENT (Other models)	
Adjust for a maximum reading on level meter	
L805	531 kHz

FM FREQUENCY COVERAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L803	87.5 kHz	1.75 ± 0.1 V
Confirmation	108 kHz	$6.2 \pm 0.5 \text{ V}$

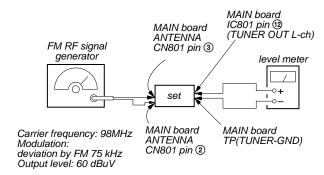
FM TRACKING ADJUSTMENT		
Adjust for a maximum reading on level meter		
L804	98 MHz	

Adjustment Location: MAIN board (See page 28).

#### [FM DETECTOR ADJUSTMENT]

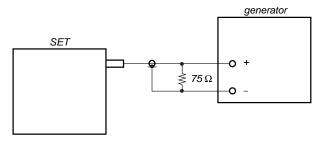
**Setting:** 

FUNCTION: TUNER TUNER/BAND button: FM



- 1. Tune the set to 98 MHz.
- Adjust L802 so that modulation distortion may become the best in the vicinity of the maximum value where the tuner out level becomes –15dBuV or more.

#### [FM Auto Stop Check]



#### **Procedure:**

- 1. Turn the power on.
- 2. Input the following signal from Signal Generator to FM antenna input directly.
- \* Carrier Freq: A = 87.5 MHz, B = 98 MHz, C = 108 MHz

Deviation: 75 kHz Modulation: 1 kHz ANT input : 35 dBu (EMF)

Note: Please use 75 ohm "coaxial cable" to connect SG and the set. You cannot use video cable for checking.

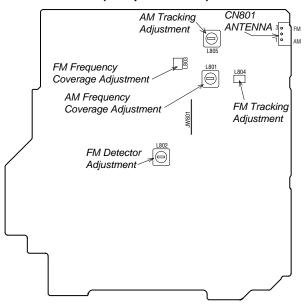
Please use SG whose output impedance is 75 ohm.

- 3. Set to FM tuner function and scan the input FM signal with automatic scanning.
- 4. Confirm that input Frequency of A, B and C are detected and automatic scanning stops.

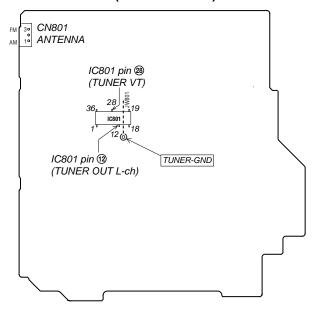
The stop of automatic scanning means "The station signal is received in good condition."

#### **Adjustment Location and Connecting Points**

### - MAIN BOARD (Component Side) -



#### - MAIN BOARD (Conductor Side) -

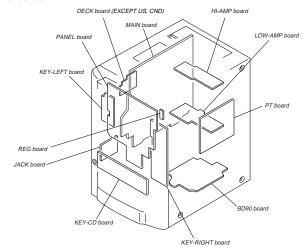


#### SECTION 7 DIAGRAMS

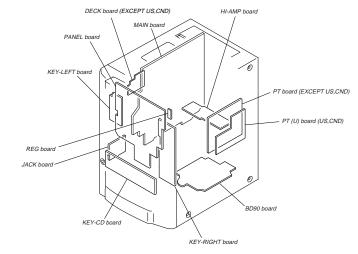
### THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS. (In addition to this, the necessary note is printed in each block.) Note on Schematic Diagram: • All capacitors are in $\mu^{\mu}$ unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums. • All resistors are in $\Omega$ and $^{1/4}$ W or less unless otherwise specified. Caution: Pattern face side: Parts on the pattern face side seen from (Side B) the pattern face are indicated. Parts lace side: Parts on the parts face side seen from (Side A) the parts face are indicated. Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified. Note: Les composants identifiés par une marque ∆ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié. Indication of transistor. These are omitted. adjustment for repair. : B+ Line. : B- Line. Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances. Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production Voltage variations in the state of the state These are omitted. ation : Argentine model : Australian model : Canadian model : 120 V AC area in E model : 240 V AC area in E model : Chilean and Peruvian models AR AUS CND E2 E3 E51 KR MX RU SP : Korean model : Mexican model : Russian model : Singapore mode

#### Circuit Boards Location

#### EC77/GX99



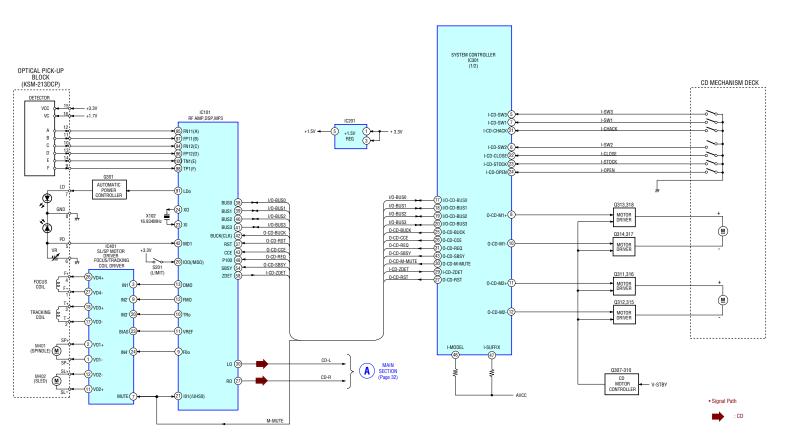
#### EC55



HCD-EC55/EC77/GX99

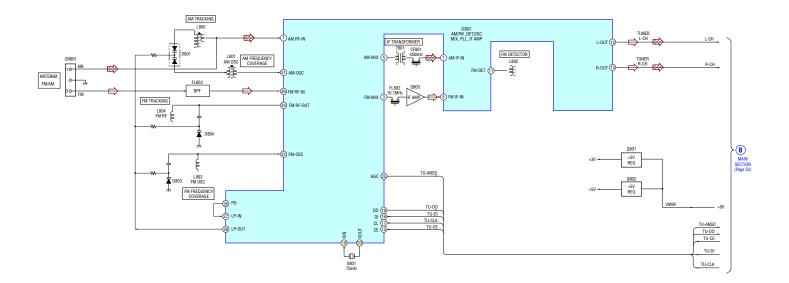
29 29

#### 7-1. BLOCK DIAGRAM — BD/DRIVER SECTION —



HCD-EC55/EC77/GX99 30 30

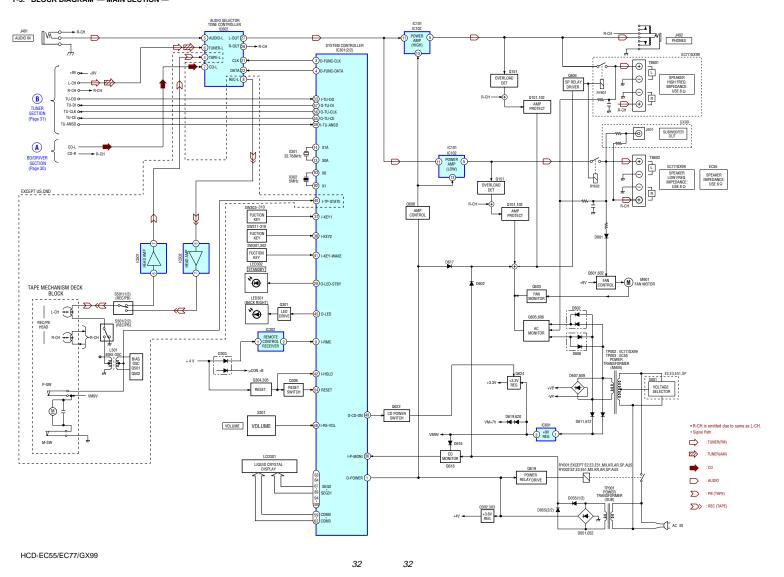
#### 7-2. BLOCK DIAGRAM — TUNER SECTION —



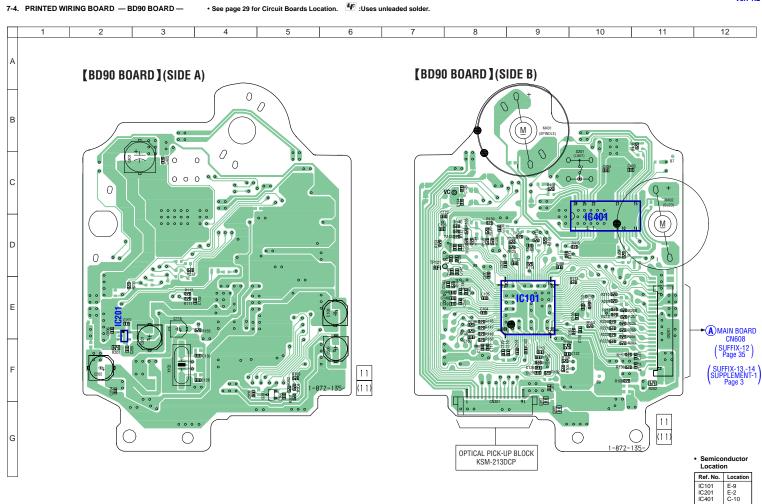


HCD-EC55/EC77/GX99 31 31

## Ver. 1.1 7-3. BLOCK DIAGRAM — MAIN SECTION —

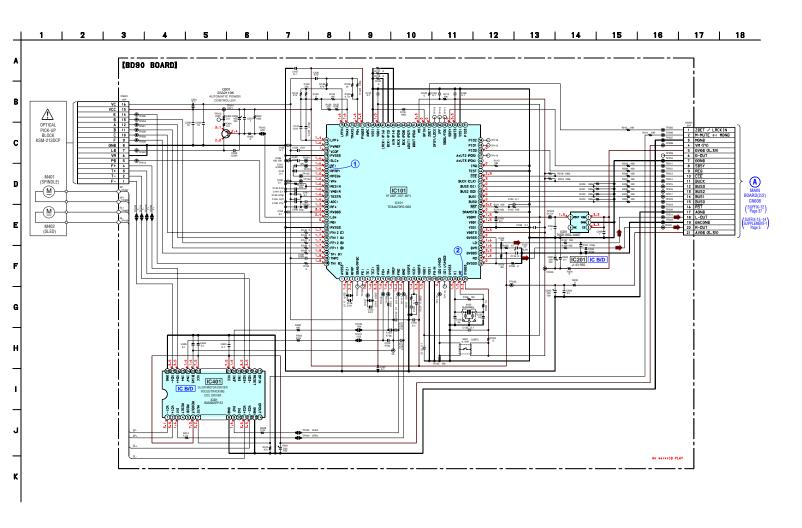


#### HCD-EC55/EC77/GX99 Ver. 1.2



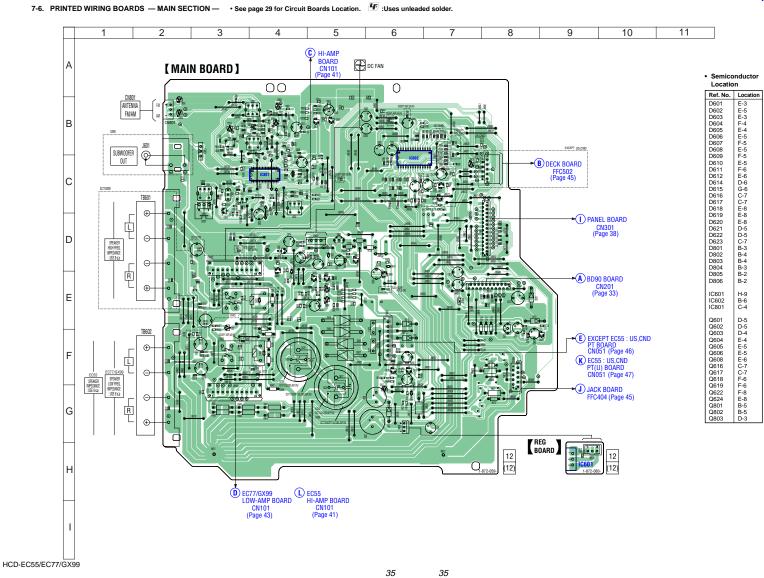
HCD-EC55/EC77/GX99 33 33

7-5. SCHEMATIC DIAGRAM — BD90 BOARD — • See page 48 for Waveforms. • See page 48 for IC Block Diagram. • See page 51 for IC Pin Function Description.

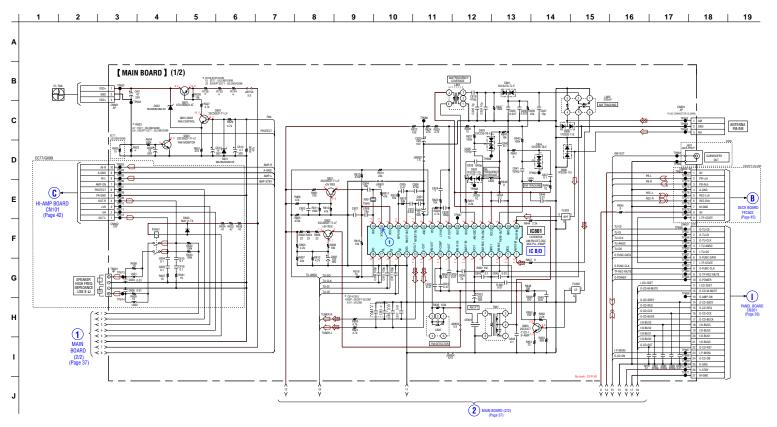


HCD-EC55/EC77/GX99

34

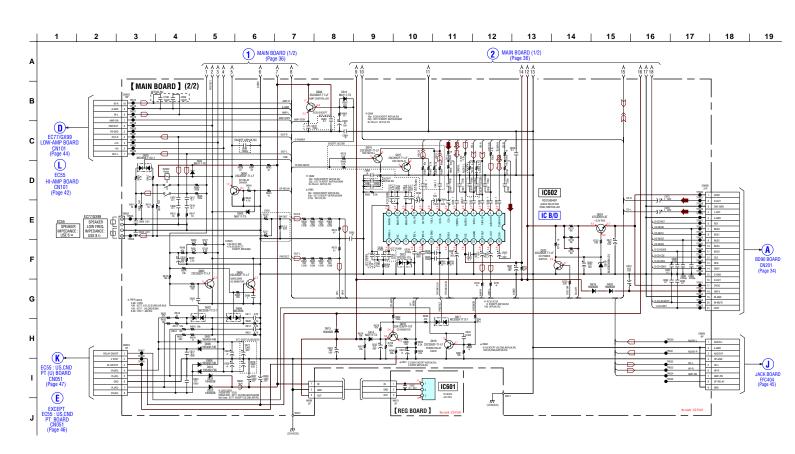


7-7. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • See page 48 for Waveform. • See page 49 for IC Block Diagram.



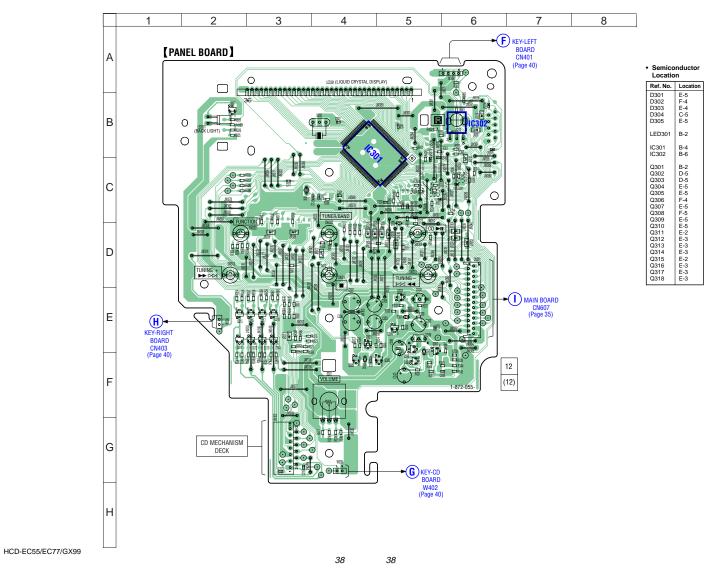
HCD-EC55/EC77/GX99

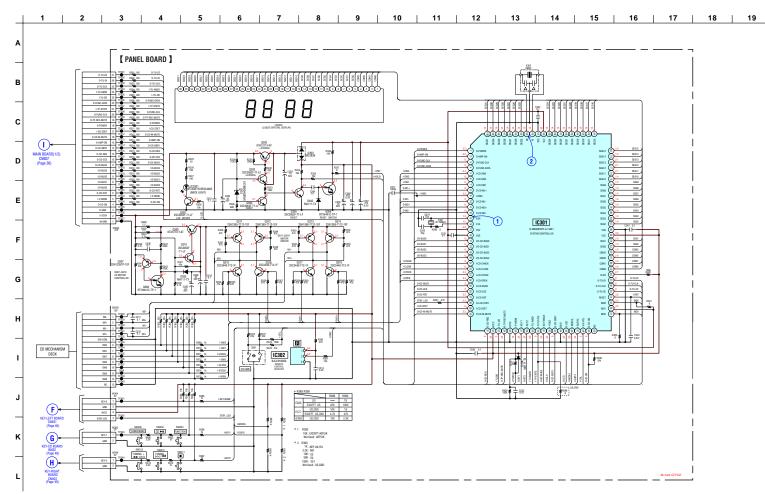
36



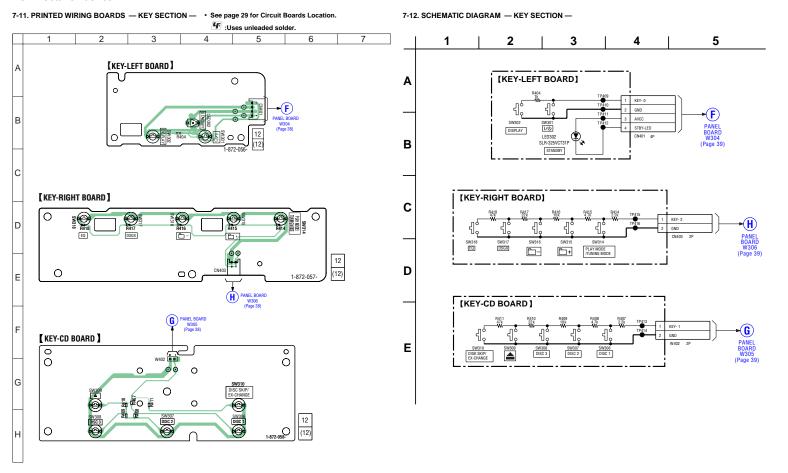
HCD-EC55/EC77/GX99 37 37

7-9. PRINTED WIRING BOARD — PANEL BOARD — • See page 29 for Circuit Boards Location.



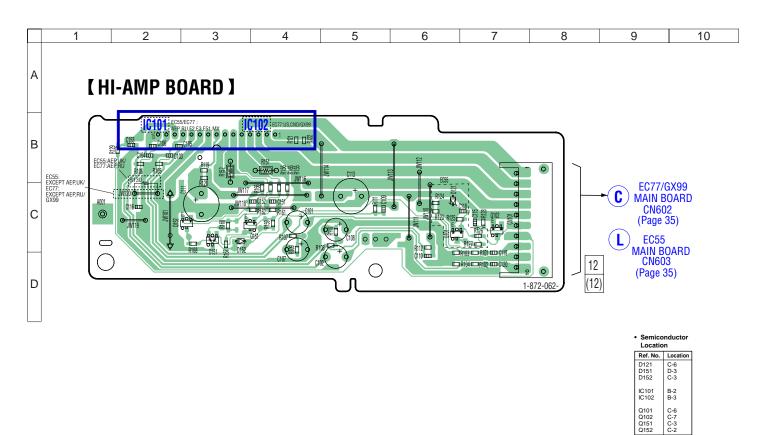


HCD-EC55/EC77/GX99 39 39



HCD-EC55/EC77/GX99 40 40

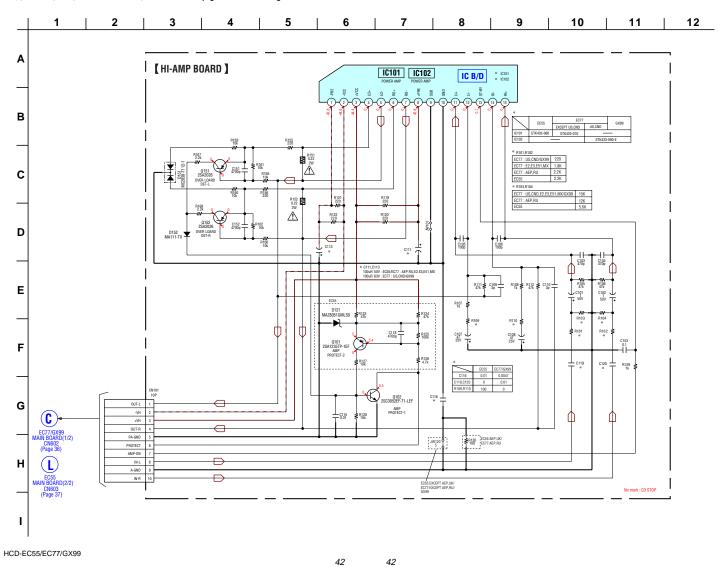
7-13. PRINTED WIRING BOARD — HI-AMP BOARD — • See page 29 for Circuit Boards Location. \*\* :Uses unleaded solder.



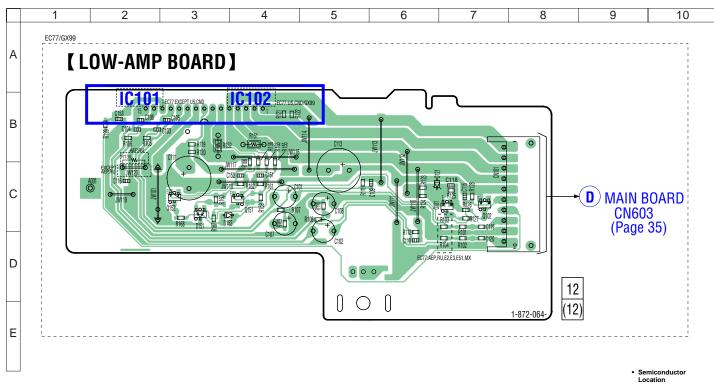
HCD-EC55/EC77/GX99

41 41



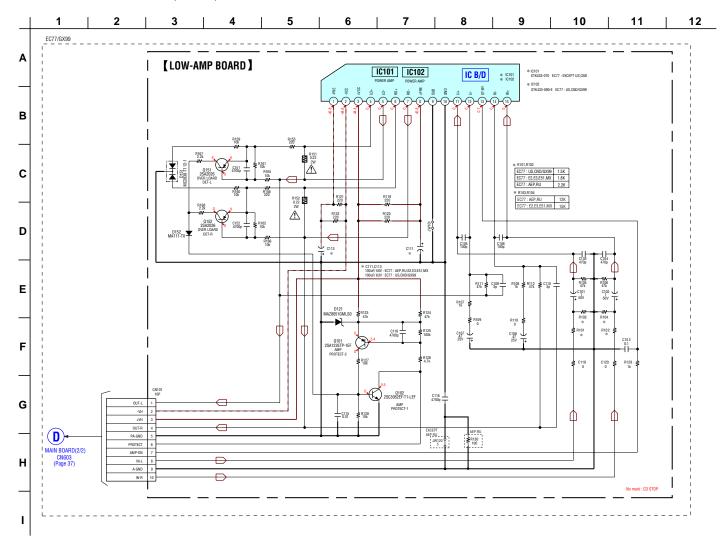


42



Ref. No.	Location
D151	C-3
D152	C-3
IC101	B-2
IC102	B-4
Q101	C-6
Q102	C-7
Q151	C-4
Q152	C-3

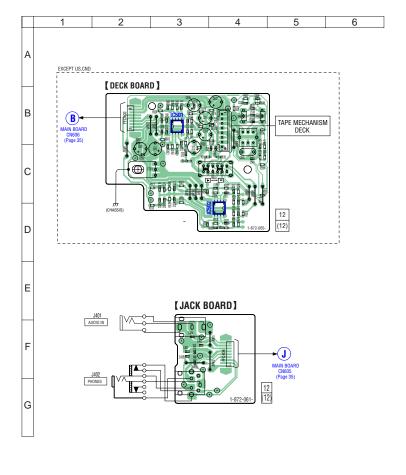
Ver. 1.2
7-16. SCHEMATIC DIAGRAM — LOW-AMP BOARD (EC77/GX99) — • See page 50 for IC Block diagram.

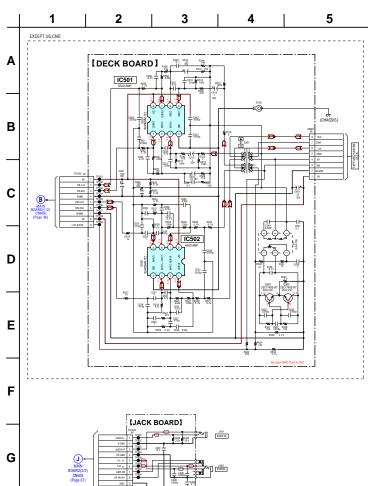


HCD-EC55/EC77/GX99

44

#### 7-17. PRINTED WIRING BOARDS — DECK SECTION (EXCEPT US, CND) —

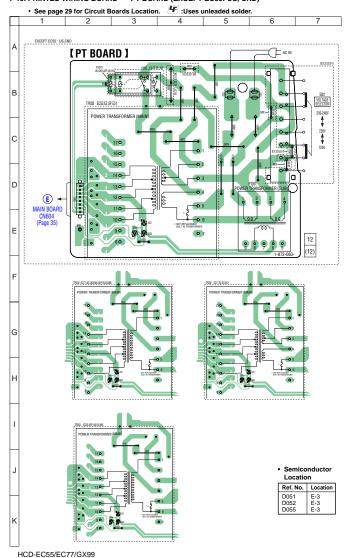




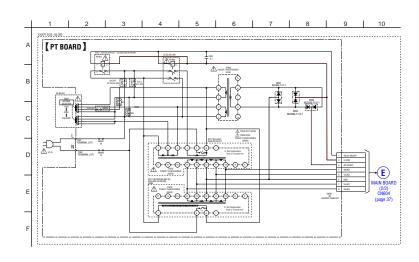
7-18. SCHEMATIC DIAGRAM — DECK SECTION (EXCEPT US, CND) —

HCD-EC55/EC77/GX99 45 45

7-19. PRINTED WIRING BOARD — PT BOARD (EXCEPT EC55: US, CND) —



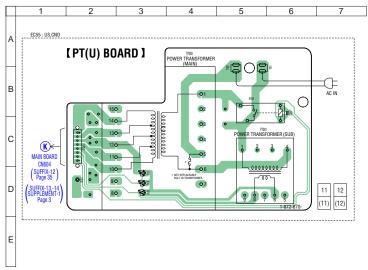
7-20. SCHEMATIC DIAGRAM — PT BOARD (EXCEPT EC55: US, CND) —

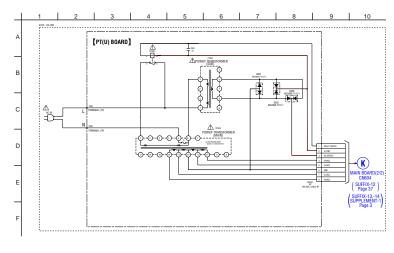


46

#### 7-21. PRINTED WIRING BOARD — PT (U) BOARD (EC55: US, CND) —

- See page 29 for Circuit Boards Location.  $\ensuremath{\checkmark\!\!F}$  :Uses unleaded solder.



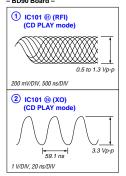


 Semiconductor Location

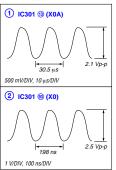
Ref. No.	Location
D051	D-3
D052	D-3
D055	D-3

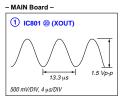
HCD-EC55/EC77/GX99 47 47

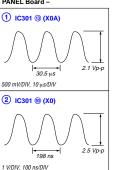
#### Waveforms BD90 Board -



#### - PANEL Board -



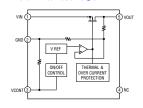




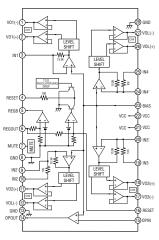
#### IC Block Diagrams

#### - BD90 Board -

#### IC201 TK63115SCL-G@GT

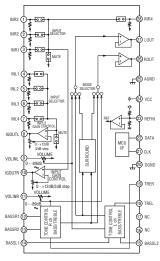


#### IC401 BA5826SFP-E2



#### - MAIN Board -

#### IC602 R2S15904SP



HCD-EC55/EC77/GX99

48 48

#### - MAIN Board -

VSS (14)

CE (15)

CL (17 DO (18 UNIVERSAL COUNTER

ССВ

#### IC801 LV23003VA AM RF FM RF -36 FM RF-IN 35 GND2 -34 FMRF-OUT 33 VCC2 -32 FM-OSC AM RF-IN (1 REG 2 FM MIX FM OSC FM-MIX (3 GND1 (4) AM MIX AM OSC AM-MIX (5 31) AM-OSC 30) B02 29) B01 -(28) A-OUT -(27) A-IN -(26) PD -(25) AGC VCC1 (6) OSC BUFFER LOW-PASS FILTER AGC AM DET AM IF AMIF-IN (7 (24) AM LOW-CUT FMIF-IN (8 FM IF FM DET €3 DET-OUT FM S-METER SD IF BUFFER ST PIROT DET TRIG P-DET (9) STSW FF FF FF PHASE COMPARATOR VCO P-COMP 10 FM-DET 11 L-OUT (12)-R-OUT (13)-DECODER MUTE 22) MPX-IN

PROGRAMMABLE DIVIDER

> SWALLOW COUNTER

> UNLOCK DETECTOR

DATA SHIFT REGISTER LATCH POWER ON RESET

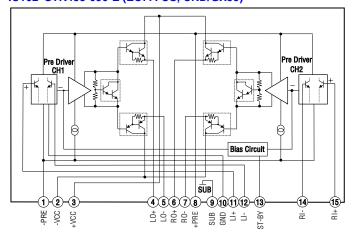
REFERENCE DIVIDER

PHASE DETECTOE CHARGE PUMP (21) VDD

-20 хоит -19 хін

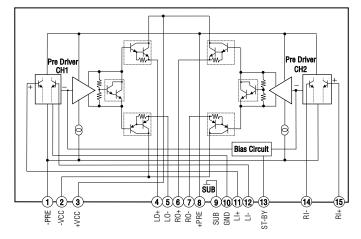
#### - HI-AMP Board -

IC101 STK433-060 (EC55)/STK433-070 (EC77: EXCEPT US, CND) IC102 STK433-090-E (EC77: US, CND/GX99)



#### - LOW-AMP Board (EC77/GX99) -

IC101 STK433-070 (EC77: EXCEPT US, CND) IC102 STK433-090-E (EC77: US, CND/GX99)



#### • IC Pin Function Description BD90 BOARD IC101 TC94A70FG-006 (RF AMP, DSP, MP3)

Pin No.	Pin Name	I/O	Description
1	AVSS3	_	Ground terminal (Used CD analog 3.3V)
2	RFZi	I	RF ripple zero cross signal input terminal
3	RFRP	О	RF ripple signal output terminal
4	SBAD/RFDC	О	Select terminal of sub beam output and RF peak detect signal (Not used (Open))
5	FEi	О	Focus error signal output terminal (Not used (Open))
6	TEi	О	Tracking error signal output terminal (Not used (Open))
7	TEZi	I	Tracking error signal input terminal (Used zero cross)
8	AVDD3		Power supply terminal (Used CD analog 3.3V)
9	FOo	О	Focus servo equalizer output terminal
10	TRo	О	Tracking servo equalizer output terminal
11	VREF	_	REF of analog power supply terminal
12	FMo	О	Feed servo equalizer output terminal
13	DMo	О	Disc servo equalizer output terminal
14	VSSP3		Ground terminal (Used DSP VOC 3.3V)
15	VCOi	О	PD output terminal (Used VCO)
16	VDDP3	_	Power supply terminal (Used DSP VCO 3.3V)
17	VDD1	_	Power supply terminal (Used digital 1.5V)
18	VSS1	_	Ground terminal (Used digital 1.5V)
19	FGiN	I	FG signal input terminal (Used CAV) (Not used (Fixed to "L"))
20	Io0(/HSo)	I	Play speed mode flag input terminal
21	Io1(/UHSo)	I	Play speed mode flag input terminal (Not used (Open))
22	XVSS3	_	Ground terminal (Used system clock 3.3V)
23	Xi	I	System clock input terminal (16.934MHz)
24	Xo	О	System clock output terminal (16.934MHz)
25	XVDD3	_	Power supply terminal (Used system clock 3.3V)
26	DVSS3	_	Ground terminal (Used DAC)
27	Ro	О	Audio R-ch data output terminal
28	DVDD3		Power supply terminal (Used DAC 3.3V)
29	DVR	_	REF voltage terminal (Used DAC)
30	Lo	О	Audio L-ch data output terminal
31	DVSS3		Ground terminal (Used DAC 3.3V)
32	VDDT3	_	Power supply terminal (Used Digital I/O 3.3V)
33	VSS1	_	Ground terminal (Used Digital 3.3V)
34	VDD1	_	Power supply terminal (Used digital 1.5V)
35	VDDM1	<u> </u>	Power supply terminal (Used 1M bit SRAM 1.5V)
36	SRAMSTB	I	1M bit SRAM standby input terminal (Not used (Fixed to "L"))
37	/RST	I	Reset signal input terminal
38	BUS0	I	Data input terminal (BUS line)
39	BUS1	I	Data input terminal (BUS line)
40	BUS2(So)	I	Data input terminal (Serial output)
41	BUS3(Si)	I	Data input terminal (Serial input)
42	BUCK(CLK)	I	BUS clock input terminal (Serial clock input)
43	/CCE	I	Clip enable input terminal (U-com interface)
44	TEST	I	Test setting terminal (Not used (Fixed to "L"))
45	IRQ	I	Cut in DSP input terminal (Not used (Fixed to "L"))
46	AoUT3(Po4)	О	BSIF ST-REQ signal output terminal (Not used (Open))
47	AoUT2(Po5)	О	Audio data output 2 terminal (Not used (Open))

Pin No.	Pin Name	I/O	Description
48	Pio0	О	REQ output terminal
49	Pio1	I	General purpose I/O input terminal (Not used (Open))
50	Pio2	I	BSIF GATE signal input terminal (Not used (Open))
51	Pio3	I	General purpose I/O input terminal (Not used (Open))
52	VSS1		Ground terminal (Digital 3.3V)
53	VDDT3		Power supply terminal (Digital I/O 3.3V)
54	SBSY	О	Sub code block sync output terminal
55	SBOK/FOK	О	Q data CRCC judgment output terminal (Not used (Open))
56	IPF	О	Correct flag output terminal (Not used (Open))
57	SFSY/LOCK	О	Servo register read clock output terminal (Not used (Open))
58	ZDET	0	DAC zero data detect flag output terminal
59	GPIN	I	General purpose input terminal (Not used (Fixed to "L"))
60	MS	I	U-com I/F mode select input terminal (Fixed to "H")
61	DoUT(Po6)	0	Digital output terminal (Not used (Open))
62	AoUT1(Po7)	О	Audio data output terminal (Not used (Open))
63	BCK(Po8)	0	Bit clock output terminal (Audio output) (Not used (Open))
64	LRCK(Po9)	0	Channel clock output terminal (Not used (Open))
65	AiN(Pi4)	I	Data input terminal (Used DAC) (Not used (Fixed to "L"))
66	BCKi(Pi5)	I	Bit clock input terminal (Used DAC) (Not used (Fixed to "L"))
67	LRCKi(Pi6)	I	Channel clock input terminal (Used DAC) (Not used (Fixed to "L"))
68	VDD1		Power supply terminal (Digital 1.5V)
69	VSS1		Ground terminal (Digital 1.5V)
70	AWRC	0	VCO control output terminal (Used active wide range) (Not used (Open))
71	PVDD3		Power supply terminal (PLL 3.3V)
72	PDo	0	Phase error signal of EFM signal and PLCK signal output terminal
73	TMAXS	0	Output terminal of TMAX detect signal (Not used (Open))
74	TMAX	0	Output terminal of TMAX detect signal
75	LPFN	I	Reverse input terminal of AMP (PLL-LPF)
76	LPFo	0	Output terminal of AMP (PLL-LPF)
77	PVREF	+ -	1.65V REF power terminal (Only PLL)
78	VCoF	0	VCO filter output terminal
79	PVSS3		Ground terminal (PLL 3.3V)
80	SLCo	0	EFM slice level output terminal
81	RFi	I	RF signal input terminal
82	RFRPi	I	RF ripple signal input terminal
83	RFEQo	0	RF equalizer output terminal
84	VRo	0	1.65V REF voltage output terminal
85	RESiN	0	REF resister terminal (22k/0.01u)
86	VMDiR		REF voltage of APC circuit output terminal
87	TESTR	0	LPF terminal (RFEQO offset correct)
88	AGCi	I	RF signal adjustment AMP input terminal
89	RFo	0	RF signal AMP output terminal
90	RVDD3		3.3V Power supply terminal (RF AMP)
91	LDo	0	Laser diode AMP output terminal
92	MDi	I	Monitor photo diode AMP input terminal
93	RVSS3		Ground terminal (RF AMP 3.3V)
94	FNi2(C)	I	Main beam input terminal (Connect to pin diode C)
95	FNi1(A)	I	Main beam input terminal (Connect to pin diode C)  Main beam input terminal (Connect to pin diodeA)
96	FPi2(D)	I	Main beam input terminal (Connect to pin diodeA)  Main beam input terminal (Connect to pin diode D)

Pin No.	Pin Name	I/O	Description
97	FPi1(B)	I	Main beam input terminal (Connect to pin diode B)
98	TPi(F)	I	Sub beam AMP input terminal (Connect to pin diode F)
99	TNPC	О	Capacitor connect terminal to the middle point of TNI/TPI input register
100	TNi(E)	I	Sub beam AMP input terminal (Connect to pin diode E)

#### PANEL BOARD IC301 MB90803PF-G-130E1 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	O-POWER	0	Power relay control signal output terminal
2	O-AMP-ON	О	AMP control signal output terminal
3	O-FUNC-CLK	О	Function select control serial data signal to IC602
4	O-FUNC-DATA	0	Function select control serial clock signal to IC602
5	I-CD-SW3	I	SW3 control input signal from CD
6	I-CD-SW2	I	SW2 control input signal from CD
7	I-CD-SW1	I	SW1 control input signal from CD
8	O-CD-M1+	0	M1+ control output signal terminal
9	I-RMC	I	Remote sensor input signal terminal
10	O-CD-M1-	О	M1- control output signal terminal
11	O-CD-M2+	О	M2+ control output signal terminal
12	O-CD-M2-	0	M2– control output signal terminal
13	X0A	О	Resonator output terminal (32.768KHz)
14	X1A	I	Resonator input terminal (32.768KHz)
15	VCC	_	Power supply terminal (+3.3V)
16	VSS	_	Ground terminal
17	I/O-CD-BUS0	0	CD data line to BD90
18	I/O-CD-BUS1	0	CD data line to BD90
19	I/O-CD-BUS2	0	CD data line to BD90
20	I/O-CD-BUS3	0	CD data line to BD90
21	I-CD-CHACK	I	CD chack switch (SW7) input terminal from BD90
22	I-CD-CLOSE	I	CD close switch (SW6) input terminal from BD90
23	I-CD-STOCK	I	CD stock switch (SW5) input terminal from BD90
24	I-CD-OPEN	I	CD open switch (SW8) input terminal from BD90
25	O-CD-BUCK	О	CD clock output terminal
26	O-CD-CCE	О	CD chip select enable output terminal
27	O-CD-RST	О	Zipang reset control output terminal
28	O-LED-STBY	О	STBY -LED control signal output terminal
29	I-CD-ZDET	0	ZDET output terminal
30	O-CD-M-MUTE	0	Motor driver mute signal output terminal
31	O-CD-REQ	О	CD DSP MP3 serial data request signal output terminal
32	AVCC	_	Power supply terminal (+3.3V)
33	I-TU-DO	О	TU data output signal terminal
34	O-TP-REC-MUTE	О	Tape REC mute signal output terminal (Except US, CND)
35	AVSS	_	Ground terminal
36	I-P-MONI	I	Power monitor signal input terminal
37	I-KEY1	I	KEY-CD board control signal (KEY-1) input terminal
38	I-KEY2	I	KEY-RIGHT board control signal (KEY-2) input terminal
39	I-TU-ANSD	I	Tuner analog SD input terminal
40	I-TP-STATE	I	Tape deck statement monitor terminal (US, CND not used (Fixed to "L"))
41	I-KEY-WAKE	I	KEY-LEFT board control signal (KEY-0) input terminal
42	I-HOLD	I	IC301 stop mode control input terminal
43	O-CD-SBSY	I	CD-SBSY signal input terminal
44	GND	_	Ground terminal
45	O-LED	О	LCD back light control output terminal
46	I-MODEL	I	Fixed model input terminal
47	I-SUFFIX	I	Fixed model suffix input terminal
48	I-RE-VOL	I	Input signal from the volume encoder

Pin No.	Pin Name	I/O	Description
49	O-CD-ON	I	CD power control signal input terminal
50	NC	О	No used (Open)
51	MD2	_	Use write (Not used (Fixed to "L"))
52	MD1	_	Use write (Not used (Fixed to "H"))
53	MD0		Use write (Not used (Fixed to "H"))
54	RESET	I	IC301 reset mode control input terminal
55	O-TU-CE	О	TU-CE signal output terminal
56	O-TU-CLK	О	TU-CLOCK signal output terminal
57	O-TU-DI	О	TU-DATA signal output terminal
58	VLCD	О	LCD voltage set output terminal
59	COM0	О	Common signal output to the LCD
60	COM1	0	Common signal output to the LCD
61	COM2	О	Common signal output to the LCD
62	CMO3	О	Common signal output to the LCD
63	SEG0	О	Segment signal output to the LCD
64	SEG1	О	Segment signal output to the LCD
65	VCC	_	Power supply terminal (+3.3V)
66	VSS	_	Ground terminal
67	SEG2	О	Segment signal output to the LCD
68	SEG3	О	Segment signal output to the LCD
69	SEG4	О	Segment signal output to the LCD
70	SEG5	О	Segment signal output to the LCD
71	SEG6	О	Segment signal output to the LCD
72	SEG7	О	Segment signal output to the LCD
73	SEG8	О	Segment signal output to the LCD
74	SEG9	О	Segment signal output to the LCD
75	SEG10	О	Segment signal output to the LCD
76	SEG11	О	Segment signal output to the LCD
77	SEG12	О	Segment signal output to the LCD
78	SEG13	О	Segment signal output to the LCD
79	SEG14	О	Segment signal output to the LCD
80	SEG15	О	Segment signal output to the LCD
81	SEG16	О	Segment signal output to the LCD
82	SEG17	О	Segment signal output to the LCD
83	SEG18	О	Segment signal output to the LCD
84	SEG19	О	Segment signal output to the LCD
85	SEG20	О	Segment signal output to the LCD
86	SEG21	О	Segment signal output to the LCD
87	SEG22	О	Segment signal output to the LCD
88	SEG23	О	Segment signal output to the LCD
89	SEG24	О	Segment signal output to the LCD
90	VCC	_	Power supply terminal (+3.3V)
91	VSS	_	Ground terminal
92	X1	I	Resonator input terminal (5MHz)
93	X0	О	Resonator output terminal (5MHz)
94	SEG25	О	Segment signal output to the LCD
95	SEG26	О	Segment signal output to the LCD
96	SEG27	О	Segment signal output to the LCD
97	SEG28	О	Segment signal output to the LCD

Pin No.	Pin Name	I/O	Description
98	SEG29	О	Segment signal output to the LCD
99	SEG30	0	Segment signal output to the LCD
100	SEG31	О	Segment signal output to the LCD

### SECTION 8 EXPLODED VIEWS

#### NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service.
   Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

Abbreviation

AR : Argentine model AUS : Australian model CND : Canadian model E2 : 120V AC area in

E2 : 120V AC area in E model E3 : 240V AC area in E model E51 : Chilean and Peruvian model

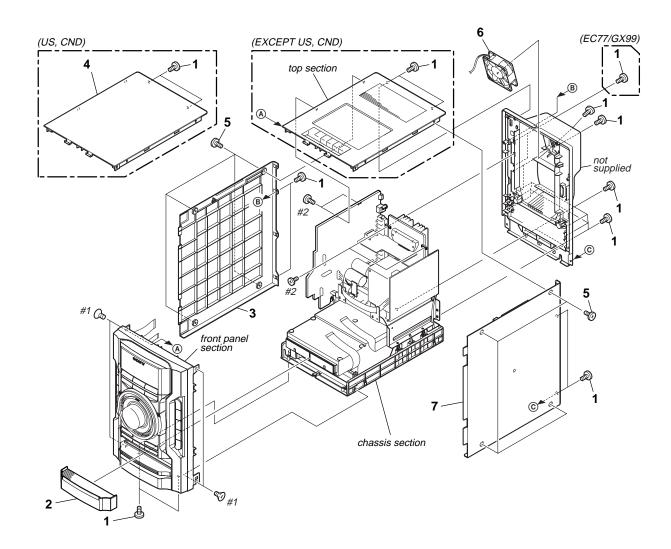
KR : Korean model
MX : Mexican model
RU : Russian model
SP : Singapore model

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité.

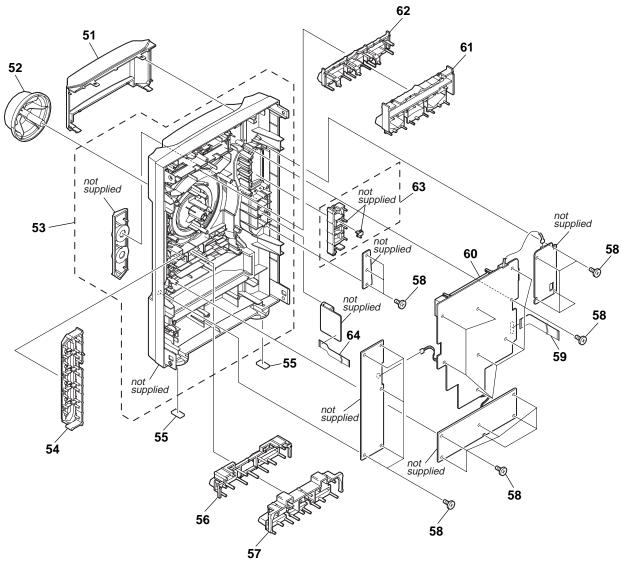
Ne les remplacer que par une pièce portant le numéro spécifié.

#### 8-1. OVERALL SECTION



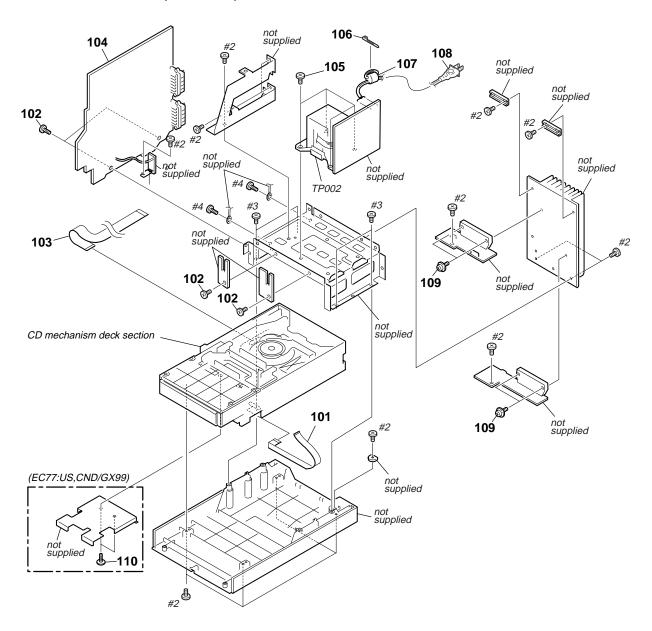
Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>	Remark
1	3-254-143-11	SCREW (B3), (+) BV TAPPING		6	1-787-319-12	FAN, DC	
2	2-890-827-01	DOOR (CD)				(EC55/EC77: AEP, RU, E2, E3, E51, MX	(, AR, AUS)
3	2-890-831-01	PANEL (L), SIDE (US, CND)		6	1-787-344-11	FAN, DC (EC77: US, CND/GX99)	
3	2-890-831-11	PANEL (L), SIDE (EXCEPT US, CND)		7	2-890-830-01	PANEL (R), SIDE (US, CND)	
4	2-890-829-01	PANEL (TOP) (US, CND)		7	2-890-830-11	PANEL (R), SIDE (EXCEPT US, CND)	
5	3-363-099-32	SCREW (CASE 3 TP2)		#1 #2		SCREW +KTP 3X10 TYPE2 NON-SLIT SCREW +BVTP 3X10 TYPE2 N-S	

#### 8-2. FRONT PANEL SECTION



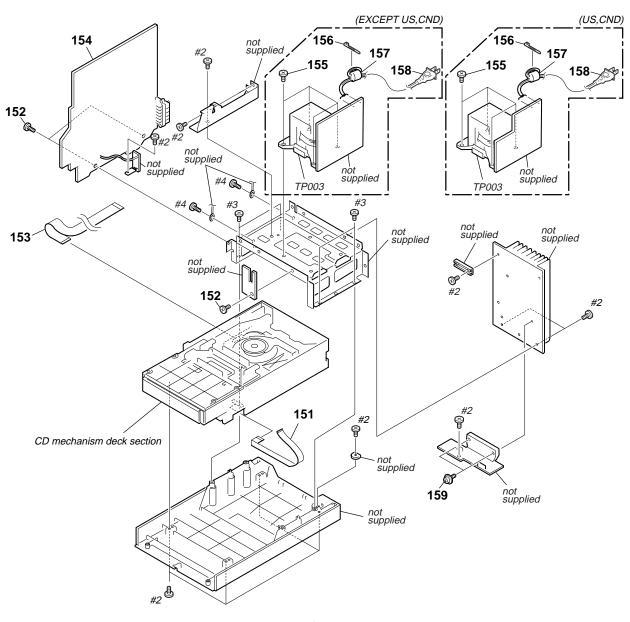
Ref. No.	Part No.	Description	<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
51	2-890-817-01	WINDOW		60	A-1218-562-A	PANEL BOARD, COMPLETE (EC77	: AEP)
		(EC55: US, CND, AEP, UK, RU, KR	, SP, AUS)				
51	2-890-817-11	WINDOW (EC55: E2, E51, MX, AR)		60	A-1218-590-A	PANEL BOARD, COMPLETE (EC77	: RU)
51	2-890-817-21	WINDOW (EC77: US, CND)		60	A-1218-598-A	PANEL BOARD, COMPLETE (EC77	: E3)
51	2-890-817-31	WINDOW (EC77: E2, E51, MX, AR)		60	A-1218-635-A	PANEL BOARD, COMPLETE (EC77	: E2)
51	2-890-817-41	WINDOW (GX99)		60	A-1218-642-A	PANEL BOARD, COMPLETE (EC77	: E51, AR)
				60	A-1218-654-A	PANEL BOARD, COMPLETE (EC77	: MX)
51	2-890-817-51	WINDOW (EC77: AEP, RU, E3, AUS)					
52	2-890-826-01	KNOB (VOL)		60	A-1218-690-A	PANEL BOARD, COMPLETE (EC55	: US, CND)
53	X-2177-497-1	PANEL (ASSY),FRONT		60	A-1218-723-A	PANEL BOARD, COMPLETE (EC55	: AEP, UK)
		(EC55: US, CND/EC77:	US, CND)	60	A-1218-754-A	PANEL BOARD, COMPLETE (EC55	: RU)
53	X-2177-498-1	PANEL ASSY, FRONT (EC55: EXCEPT L	JS, CND)	60	A-1218-772-A	PANEL BOARD, COMPLETE (EC55	: KR, SP)
53	X-2177-499-1	PANEL ASSY, FRONT (EC77: EXCEPT U	JS, CND)	60	A-1218-812-A	PANEL BOARD, COMPLETE (EC55	: E2)
53	X-2177-500-1			60		PANEL BOARD, COMPLETE (EC55	. ,
54	2-890-823-01	BUTTON (DSGX)		60	A-1218-831-A	PANEL BOARD, COMPLETE (EC55	: MX)
55	4-225-252-01	CUSHION (FOOT)		60	A-1247-478-A	PANEL BOARD, COMPLETE (EC77	: AUS)
56	2-890-820-01	BUTTON (EJECT)		60	A-1247-481-A	PANEL BOARD, COMPLETE (EC55	: AUS)
57	2-890-821-01	BUTTON (DISC)		61	2-890-819-01	BUTTON (TUNING)	
58	4-951-620-01	SCREW (2.6X8), +BVTP		62	2-890-818-01	BUTTON (FUNCTION)	
59	1-833-800-21	CABLE, FLEXIBLE FLAT (27 CORE)		63	X-2177-496-1	,	
60		PANEL BOARD, COMPLETE (GX99)		64	1-832-053-21	CABLE, FLEXIBLE FLAT (9 CORE)	
60	A-1218-536-A	PANEL BOARD, COMPLETE (EC77: US	, CND)				

#### 8-3. CHASSIS SECTION (EC77/GX99)



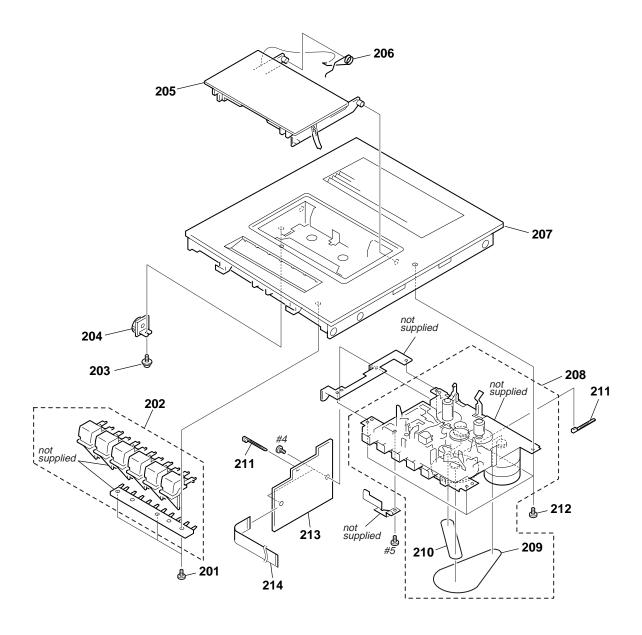
Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
101	1-832-838-21	CABLE, FLEXIBLE FLAT (13 CORE)		<b>108</b> <u></u> ∆	1-832-377-11	CORD, POWER (MX)	
102	3-254-143-11	SCREW (B3), (+) BV TAPPING		108 ⊥	1-834-172-11	, , ,	
103	1-834-181-21	CABLE, FLEXIBLE FLAT (21 CORE)		109	3-905-609-31	SCREW (TRANSISTOR)	
104	A-1218-507-A	MAIN BOARD, COMPLETE (GX99)		110	3-229-336-01	SCREW, +BVWH TAPPING	(3X8)
104	A-1218-539-A	MAIN BOARD, COMPLETE (EC77: US,	CND)	<b>△</b> TP002	1-445-113-11	TRANSFORMER, POWER	
						(8	EC77: US, CND/GX99)
104	A-1218-580-A	MAIN BOARD, COMPLETE (EC77: AEF	P, RU)				
104	A-1218-600-A	MAIN BOARD, COMPLETE (EC77: E3,	AUS)	<b>△</b> TP002	1-445-118-11	TRANSFORMER, POWER (	EC77: AEP, RU)
104	A-1218-637-A	MAIN BOARD, COMPLETE (EC77: E2,	E51, AR)	<b>△</b> TP002	1-445-119-11	TRANSFORMER, POWER	
104	A-1271-410-A	MAIN BOARD, COMPLETE (EC77: MX	)			(EC77: I	E2, E3, E51, AR, AUS)
105	4-900-386-01	SCREW		<b>△</b> TP002	1-445-120-11	TRANSFORMER, POWER (	EC77: MX)
				#2	7-685-647-79	SCREW +BVTP 3X10 TYPE	2 N-S
106	3-701-748-00	CLAMP		#3	7-685-661-14	SCREW +BVTP 4X12 TYPE	2 IT-3
107	1-500-868-11	CORE, FERRITE					
<b>108 1</b>	1-775-790-81	CORD, POWER (AUS)		#4	7-685-645-79	SCREW +BVTP 3X6 TYPE2	IT-3
<b>108 △</b>	1-790-757-52	CORD, POWER (US, CND)					
108 ⊥	1-831-370-11	CORD, POWER (AEP, RU, E2, E3, E51)	)				

#### 8-4. CHASSIS SECTION (EC55)



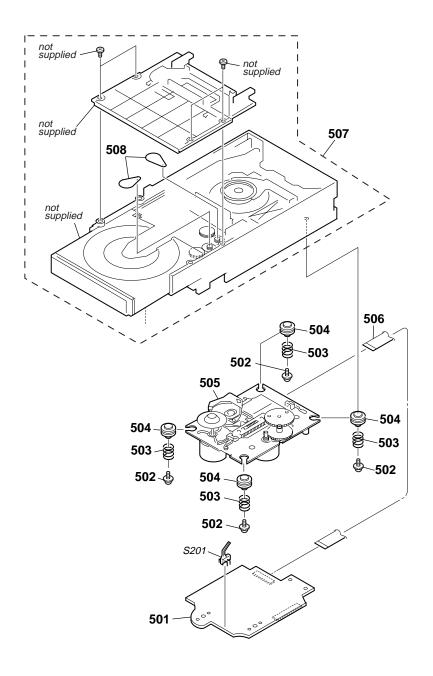
Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>	Ref. No.	Part No.	Description	<u>Remark</u>
151	1-832-838-21	CABLE, FLEXIBLE FLAT (13 CORE)		158 ⊥	1-830-891-11	CORD, POWER (UK)	
152	3-254-143-11	SCREW (B3), (+) BV TAPPING					
153	1-834-181-21	CABLE, FLEXIBLE FLAT (21 CORE)		158 ⊥	1-831-370-11	CORD, POWER (AEP, RU, E2, E51, SI	P)
154	A-1218-693-A	MAIN BOARD, COMPLETE (EC55: US,	CND)	158 ⊥	1-832-377-11	CORD, POWER (MX)	
154	A-1218-725-A	MAIN BOARD, COMPLETE (EC55: AEF	P, UK, RU)	<b>158 1</b>	1-834-172-11	CORD, POWER (AR)	
				159	3-905-609-31	SCREW (TRANSISTOR)	
154	A-1218-774-A	MAIN BOARD, COMPLETE (EC55: SP,	AUS)	<b>△</b> TP003	1-443-911-11	TRANSFORMER, POWER	
154	A-1218-814-A	MAIN BOARD, COMPLETE				(E2, E51, KR, A	R, SP, AUS)
		(EC55: E2, E5 <sup>-</sup>	1, MX, AR)				
154	A-1258-298-A	MAIN BOARD, COMPLETE (EC55: KR)		⚠ TP003	1-443-995-11	TRANSFORMER, POWER (MX)	
155	4-900-386-01	SCREW		⚠ TP003	1-445-115-11	TRANSFORMER, POWER (US, CND)	
156	3-701-748-00	CLAMP		⚠ TP003	1-445-117-11	TRANSFORMER, POWER (AEP, UK, F	RU)
				#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
157	1-500-868-11	CORE, FERRITE		#3	7-685-661-14	SCREW +BVTP 4X12 TYPE2 IT-3	
<b>158 1</b>	1-769-079-51	CORD, POWER (KR)					
<b>158 1</b>	1-775-790-81	CORD, POWER (AUS)		#4	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
<b>158 158</b>	1-790-757-52	CORD, POWER (US, CND)					

#### 8-5. TOP SECTION (EXCEPT US, CND)



Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
201	3-252-827-01	SCREW (B2.6), (+) BV TAPPING		211	3-701-748-00	CLAMP	
202	2-649-132-21	BUTTON (CASS)		212	4-951-620-01	SCREW (2.6X8), +BVTP	
203	3-921-725-01	SCREW (2.6X10), +PWH		213	A-1218-569-A	DECK BOARD, COMPLETE	
204	3-047-468-01	DAMPER				(EC77: AEP, RU, E2, E3, E51, MX	, AR, AUS)
205	2-649-131-21	BOX, CASSETTE		213	A-1218-730-A	DECK BOARD, COMPLETE	,
					(E	C55: AEP, UK, RU, E2, E51, MX, KR, AF	R, SP, AUS)
206	2-649-152-02	SPRING (CASS)		214	1-833-801-21	CABLE, FLEXIBLE FLAT (9 CORE)	
207	2-649-128-71	PANEL, TOP					
208	1-797-575-11	DECK, MECHANICAL		#4	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
209	2-688-622-01	BELT (MAIN)		#5	7-685-850-04	SCREW +BVTT 2X3 (S)	
210	2-688-621-01	BELT (R/F)					

#### 8-6. CD MECHANISM DECK SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
501	A-1217-914-A	BD90 BOARD, COMPLETE		506	1-832-404-21	CABLE, FLEXIBLE FLAT (16 CORE)	
502	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING		507	1-797-193-12	MECHANICAL, CD (DLM3A23-11)	
503	4-227-045-31	SPRING (INSULATOR), COIL		508	2-632-062-11	BELT (DLM3A)	
504	4-227-549-31	INSULATOR		S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	
<b>1</b> 505	A-4735-357-A	BASE ASSY, OP (KSM-213)					

### SECTION 9 ELECTRICAL PARTS LIST

BD90

#### NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
   All resistors are in ohms.
   METAL: Metal-film resistor.
   METAL OXIDE: Metal oxide-film resistor.
   F: nonflammable
- CAPACITORS
- uF: μF
- COILS
   "H" | | | |

 Items marked "\*" are not stocked since they are seldom required for routine service.
 Some delay should be anticipated when ordering these items.

• SEMICONDUCTORS

In each case, u:  $\mu$ , for example:

 $\begin{array}{lll} uA. & : \mu A. & & uPA. & \vdots \mu PA. . \\ uPB. & : \mu PB. & & uPC. & : \mu PC. . \end{array}$ 

uPD. . : μPD. . Abbreviation

AR : Argentine model AUS : Australian model CND : Canadian model

E2 : 120V AC area in E model E3 : 240V AC area in E model E51 : Chilean and Peruvian model When indicating parts by reference number, please include the board name.

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

KR : Korean model
MX : Mexican model
RU : Russian model

uH: µH						Peruvian mo			sian model		
•	Dowt No.	Danamintian		L31 .					apore model		Damani
Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
	A-1217-914-A	BD90 BOARD, CO									
		******	*****			C147	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
						C148	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
		< CAPACITOR >				C149	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
						C150	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C100	1-164-360-11	CERAMIC CHIP	0.1uF		16V	C151	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C101	1-164-360-11	CERAMIC CHIP	0.1uF		16V						
C102	1-164-360-11	CERAMIC CHIP	0.1uF		16V	C152	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C103	1-164-360-11	CERAMIC CHIP	0.1uF		16V	C153	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C104	1-164-360-11	CERAMIC CHIP	0.1uF		16V	C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
						C202	1-128-995-21		100uF	20%	10V
C105	1-164-360-11	CERAMIC CHIP	0.1uF		16V	C204	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C106	1-128-995-21	ELECT CHIP	100uF	20%	10V						
C107	1-164-360-11	CERAMIC CHIP	0.1uF		16V	C205	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C108	1-164-360-11	CERAMIC CHIP	0.1uF		16V	C206		CERAMIC CHIP	1uF	10%	10V
C109		CERAMIC CHIP	0.1uF		16V	C207	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
					-	C301		CERAMIC CHIP	0.1uF		16V
C110	1-164-360-11	CERAMIC CHIP	0.1uF		16V	C302		CERAMIC CHIP	10uF	20%	6.3V
C112		CERAMIC CHIP	0.1uF		16V	0002		02.11.11.110		20,0	0.01
C113		CERAMIC CHIP	0.1uF		16V	C303	1-137-710-91	CERAMIC CHIP	10uF	20%	6.3V
C115	1-124-778-00		22uF	20%	6.3V	C306	1-128-995-21		100uF	20%	10V
C116		CERAMIC CHIP	0.1uF	2070	16V	C307	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
0110	1 101 000 11	OLI II IIII O OI III	o.rui		101	C309		CERAMIC CHIP	0.001uF	10%	50V
C117	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C401	1-128-394-11		220uF	20%	10V
C118		CERAMIC CHIP	0.01uF	10%	25V	0401	1 120 004 11	LLLOT OTHI	ZZOUI	2070	101
C119		CERAMIC CHIP	0.022uF	10%	25V	C403	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C120		CERAMIC CHIP	0.022ui	10%	25V	C404		CERAMIC CHIP	0.1uF		16V
C122		CERAMIC CHIP	470PF	5%	50V	C405		CERAMIC CHIP	0.1uF		16V
0122	1 104 010 11	OLITAWIO OTIII	77011	<b>3</b> /0	30 V	0403	1 104 300 11	OLITAWIO OTIII	0.Tui		100
C123	1-164-315-11	CERAMIC CHIP	470PF	5%	50V			< CONNECTOR :			
C124		CERAMIC CHIP	0.0047uF		50V			< OUNINEOTOR .			
C125		CERAMIC CHIP	0.0047uF	10%	50V	CN201	1-784-833-51	CONNECTOR, FI	C (LIE (NON.	-7IE\\ 21I	)
C126		CERAMIC CHIP	0.1uF	10%	16V	CN301	1-770-425-51	CONNECTOR, FI		211 )) 211	
C127		CERAMIC CHIP	0.0022uF		50V	GINOUT	1-110-425-51	CONNECTOR, 11	0/11 0 101		
0127	1-102-300-11	OLIMANIO OIIII	0.002241	10 /0	J0 V			< IC >			
C128	1_162_010_11	CERAMIC CHIP	5PF	0.25PF	501/			(10)			
C130		CERAMIC CHIP	5PF	0.25PF		IC101	(Not cumplied)	IC TC94A70FG	-006		
C132		CERAMIC CHIP	0.1uF	0.2311	16V	IC201	6-710-808-01	IC TK63115SC			
C133		CERAMIC CHIP	0.1uF	10%	16V	IC401	6-710-637-01	IC BA5826SFP			
C136		CERAMIC CHIP	47PF	5%	50V	10401	0-710-037-01	IO DAJUZUOITI	-LZ		
0130	1-102-923-11	CLNAIMIC CHIF	4/17	J /0	301			< TRANSISTOR			
C137	1 160 070 11	CERAMIC CHIP	0.01uF	10%	25V			< INAIISISIUN	>		
		CERAMIC CHIP	470PF			Q301	C EE1 100 01	TDANCICTOD	2SA2119k	,	
C138		CERAMIC CHIP	0.01uF	5% 10%	50V 25V	Q301	6-551-120-01	INANSISIUN	23A2119h	`	
C139								. DECICEOD .			
C140		CERAMIC CHIP	0.01uF	10%	25V			< RESISTOR >			
C141	1-102-900-11	CERAMIC CHIP	0.0022uF	10%	50V	D101	1 016 010 11	METAL CLUD	220	E0/	1/1014
01.40	1 107 000 11	CEDAMIC OLUB	0.1	100/	161/	R101	1-216-813-11		220	5%	1/10W
C142		CERAMIC CHIP	0.1uF	10%	16V	R102	1-216-833-11	METAL CHIP	10K	5%	1/10W
C143		CERAMIC CHIP	0.01uF	10%	25V	R104	1-216-295-91	SHORT CHIP	0	F0/	4 /4 0 14 /
C144		CERAMIC CHIP	0.1uF	10%	16V	R105	1-216-857-11		1M	5%	1/10W
C145		CERAMIC CHIP	0.01uF	10%	25V	R106	1-216-821-11	WE IAL CHIP	1K	5%	1/10W
C146	1-164-315-11	CERAMIC CHIP	470PF	5%	50V						

### BD90 DECK

Dof No	Dort No	Description			Domork	Dof No	Dort No	Description			Domork
Ref. No.	Part No.	<u>Description</u>	_		<u>Remark</u>	Ref. No.	Part No.	Description			<u>Remark</u>
R108	1-216-864-11		0	<b>5</b> 0/	4 14 00 14	R408	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R110	1-216-833-11		10K	5%	1/10W	R414	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R111 R112	1-216-809-11 1-216-809-11		100 100	5% 5%	1/10W 1/10W	R415	1-216-841-11	METAL CLID	47K	5%	1/10W
R112	1-216-833-11		10K	5%	1/10W	N413	1-210-041-11	WIL TAL OTHE	47 K	J /0	1/1000
niio	1-210-033-11	WILTAL OTTE	TUK	J /0	1/1000			< VIBRATOR >			
R114	1-216-833-11	METAL CHIP	10K	5%	1/10W			< VIDITATOR >			
R118	1-216-845-11		100K	5%	1/10W	X102	1-795-101-21	VIBRATOR, CERA	AMIC (16.93	4MHz)	
R120	1-216-864-11		0			*****		******			*****
R125	1-216-864-11	SHORT CHIP	0								
R126	1-216-864-11	SHORT CHIP	0				A-1218-569-A	DECK BOARD, C			
								(E	C77: AEP, R	U, E2, E3	, E51, MX)
R127	1-216-864-11		0				A-1218-730-A	DECK BOARD, C			
R128	1-216-853-11		470K	5%	1/10W			`	C55: AEP, UI	K, RU, E2	, E51, MX)
R129	1-216-821-11		1K	5%	1/10W			******	*****		
R130	1-216-829-11		4.7K	5%	1/10W			0.00000000			
R134	1-216-857-11	METAL CHIP	1M	5%	1/10W			< CAPACITOR >			
R135	1-216-853-11	METAL CLID	470K	5%	1/10W	C501	1-126-933-11	ELECT	100uF	20%	16V
R136	1-216-837-11		22K	5% 5%	1/10W	C501	1-126-933-11	ELECT	100uF 100uF	20%	16V 16V
R139	1-216-841-11		47K	5%	1/10W	C502	1-162-966-11		0.0022uF	10%	50V
R140	1-216-864-11		47K 0	3 70	1/1000	C503	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V 50V
R140	1-216-837-11		22K	5%	1/10W	C505		CERAMIC CHIP	0.0022ui 0.01uF	10%	25V
11142	1-210-037-11	WILTAL OTTI	2211	J /0	1/1000	0303	1-102-370-11	OLITAWIO OTIII	0.0141	10 /0	231
R143	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R144	1-216-837-11		22K	5%	1/10W	C506	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R145	1-216-864-11		0			C509	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
R146	1-216-864-11		0			C510	1-162-923-11		47PF	5%	50V
R147	1-216-864-11		0			C511	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
						C512	1-162-960-11		220PF	10%	50V
R148	1-216-864-11	SHORT CHIP	0								
R149	1-216-864-11	SHORT CHIP	0			C513	1-126-960-11	ELECT	1uF	20%	50V
R150	1-216-864-11	SHORT CHIP	0			C514	1-126-960-11	ELECT	1uF	20%	50V
R151	1-216-864-11	SHORT CHIP	0			C515	1-126-947-11	ELECT	47uF	20%	35V
R153	1-216-857-11	METAL CHIP	1M	5%	1/10W	C516	1-126-947-11	ELECT	47uF	20%	35V
						C517	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R154	1-216-857-11		1M	5%	1/10W						
R155	1-216-805-11		47	5%	1/10W	C519		CERAMIC CHIP	470PF	10%	50V
R156	1-216-809-11		100	5%	1/10W	C520	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
R157	1-216-809-11		100	5%	1/10W	C521	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
R201	1-216-295-91	SHORT CHIP	0			C522	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
D000	1 010 005 01	CHODT CHID	0			C523	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
R202	1-216-295-91		0	F0/	4 /4 0 14	0504	1 105 007 01	OEDAMIO OUID	4	100/	C 01/
R203	1-216-809-11		100	5%	1/10W	C524		CERAMIC CHIP	1uF	10%	6.3V
R204 R205	1-216-809-11		100	5%	1/10W	C525		CERAMIC CHIP	47PF	5%	50V
	1-216-809-11 1-216-809-11		100	5% 5%	1/10W 1/10W	C526 = C527		CERAMIC CHIP	47PF 470PF	5% 10%	50V 50V
R206	1-210-009-11	WETAL UNIF	100	370	1/1000	C528	1-162-962-11	CERAMIC CHIP	470FF 470PF	10%	50V 50V
R207	1-216-809-11	METAL CHIP	100	5%	1/10W	0320	1-102-302-11	OLITAWIO OTIII	47011	10 /0	30 V
R208	1-216-809-11		100	5%	1/10W	C529	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
R209	1-216-809-11		100	5%	1/10W	C530		CERAMIC CHIP	330PF	10%	50V
R210	1-216-809-11		100	5%	1/10W	C531	1-162-970-11		0.01uF	10%	25V
R211	1-216-809-11		100	5%	1/10W	C532	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
						C533	1-162-966-11	CERAMIC CHIP	0.0022uF		50V
R212	1-216-809-11	METAL CHIP	100	5%	1/10W						
R218	1-216-845-11	METAL CHIP	100K	5%	1/10W	C534	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
R219	1-216-845-11	METAL CHIP	100K	5%	1/10W	C535	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
R220	1-216-845-11	METAL CHIP	100K	5%	1/10W	C536	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
R221	1-216-845-11	METAL CHIP	100K	5%	1/10W	C537	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
						C538	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R222	1-216-845-11		100K	5%	1/10W						
R223	1-216-845-11		100K	5%	1/10W	C539	1-115-156-11	CERAMIC CHIP	1uF		10V
R301	1-216-845-11		100K	5%	1/10W	C540	1-137-391-11	MYLAR	0.0047uF	5%	100V
R302	1-216-864-11		0			C541	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
R303	1-216-789-11	METAL CHIP	2.2	5%	1/10W	C542	1-104-662-91	ELECT	22uF	20%	25V
D.C	1 010 =00 (:	METAL COOR	2.0	F0:	446	C543	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R304	1-216-789-11		2.2	5%	1/10W	05.45	4 400 500 61	OFDAMA'S SUIT	0.4.5	4.007	051/
R402	1-216-825-11		2.2K	5%	1/10W	C545		CERAMIC CHIP	0.1uF	10%	25V
R405	1-216-833-11	WE IAL CHIP	10K	5%	1/10W	C546	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V

DECK HI-AMP

Ref. No.	Part No.	<u>Description</u>			Remark	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
		< CONNECTOR >				R533	1-216-837-11	METAL CHIP	22K	5%	1/10W
						R534	1-216-835-11		15K	5%	1/10W
CN501	1-815-449-11	PIN, CONNECTOR	R (PWB) 8P	)		R535	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
		< TERMINAL >				R536 R537	1-216-829-11 1-216-833-11		4.7K 10K	5% 5%	1/10W 1/10W
ET501	1-537-771-21	TERMINAL BOAR	D, GROUN	D		R538 R539	1-216-833-11 1-216-793-11	METAL CHIP	10K 4.7	5% 5%	1/10W 1/10W
		< IC >				R540	1-216-805-11		47	5%	1/10W
	/									==.	
IC501 IC502	8-759-100-96 8-759-100-96	IC uPC4558G2 IC uPC4558G2				R541 R543	1-216-805-11 1-216-809-11	METAL CHIP	47 100	5% 5%	1/10W 1/10W
		< JUMPER RESIS	STOR >			R544 R545	1-216-809-11 1-216-817-11	METAL CHIP	100 470	5% 5%	1/10W 1/10W
JR501	1-216-864-11	SHORT CHIP	0			R546	1-216-817-11	METAL CHIP	470	5%	1/10W
JR502	1-216-864-11		0					< SWITCH >			
JR503 JR504	1-216-864-11 1-216-295-91		0 0			S501		SWITCH, SLIDE			
		< COIL >				******	******	******	******	*****	******
L501	1-456-094-11	TRANSFORMER,	BIAS OSCI	LLATION				HI-AMP BOARD			
		< TRANSISTOR >						< CAPACITOR >			
Q501	8-729-119-78		2SC2785			C101	1-126-960-11		1uF	20%	50V
Q502	8-729-119-78	TRANSISTOR	2SC2785	-HFE		C102	1-126-960-11		1uF	20%	50V
		< RESISTOR >				C103 C104		CERAMIC CHIP CERAMIC CHIP	470PF 470PF	5% 5%	50V 50V
		< neololun >				C104		CERAMIC CHIP	100PF	5% 5%	50V 50V
R501	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	0100	1 102 327 11	OLIVIWIO OIIII	10011	0 70	001
R502	1-216-825-11		2.2K	5%	1/10W	C106	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R503	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C107	1-126-947-11	ELECT	47uF	20%	35V
R504	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C108	1-126-947-11	ELECT	47uF	20%	35V
R505	1-216-835-11	METAL CHIP	15K	5%	1/10W	C109	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
						C110	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
R506	1-216-835-11	METAL CHIP	15K	5%	1/10W						
R507	1-216-851-11	METAL CHIP	330K	5%	1/10W	C111	1-126-968-11	ELECT	100uF	20%	50V
R508	1-216-851-11		330K	5%	1/10W				(EC55/EC77	7: EXCEP	T US,CND)
R509	1-216-811-11		150	5%	1/10W	C111	1-128-576-11	ELECT	100uF	20%	63V
R510	1-216-811-11	METAL CHIP	150	5%	1/10W						ND/GX99)
DE44	1 010 045 11	METAL CLUD	1001/	F0/	1/10/1/	C113	1-126-968-11	ELECT	100uF	20%	50V
R511	1-216-845-11		100K	5%	1/10W	0110	1 100 570 11	FLEOT	(EC55/EC77		. ,
R512	1-216-845-11 1-216-845-11	METAL CHIP	100K	5%	1/10W	C113	1-128-576-11	ELEGI	100uF	20%	63V
R513 R514	1-216-845-11		100K 100K	5% 5%	1/10W 1/10W	C115	1_162_070_11	CERAMIC CHIP	0.01uF	10%	ND/GX99) 25V
R515	1-216-864-11		0	3 /0	1/1000						
R516	1-216-864-11	SHORT CHIP	0			C116	1-102-908-11	CERAMIC CHIP	0.0047uF		50V C77/GX99)
R517	1-216-821-11		1K	5%	1/10W	C116	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R518	1-216-821-11		1K	5%	1/10W	0110	1 100 000 11	OFDAMIO OLUD	0.00475	100/	(EC55)
R519 R520	1-216-841-11 1-216-841-11		47K 47K	5% 5%	1/10W 1/10W	C118		CERAMIC CHIP	0.0047uF		50V (EC55)
R521	1-216-841-11	METAL CHID	47K	5%	1/10W	C119	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V C77/GX99)
R522	1-216-841-11		47K 47K	5%	1/10W	C119	1-216-864-11	SHORT CHIP	0 (EC55)	(L	511/GA33)
R523	1-216-827-11		3.3K	5%	1/10W	0113	1-210-004-11	SHORT OTH	0 (L033)		
R524	1-216-827-11		3.3K	5%	1/10W	C120	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R525	1-216-851-11		330K	5%	1/10W	0120	1 102 310-11	OLI II IIVIIO OI III	o.o rul		23 V C77/GX99)
						C120	1-216-864-11	SHORT CHIP	0 (EC55)	,_	
R526	1-216-851-11	METAL CHIP	330K	5%	1/10W	C151		CERAMIC CHIP	0.0047uF	10%	50V
R527	1-216-851-11		330K	5%	1/10W	C152	1-162-968-11	CERAMIC CHIP	0.0047uF		50V
R528	1-216-851-11		330K	5%	1/10W	C153	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
R529	1-216-825-11		2.2K	5%	1/10W						
R530	1-216-825-11	METAL CHIP	2.2K	5%	1/10W			< CONNECTOR >			
DE04	1 016 000 11	METAL CLUB	0.01/	E0/	1/10/4/	* 001404	1 560 505 11	DINI CONNICOTO	100		
R531 R532	1-216-832-11 1-216-832-11		8.2K 8.2K	5% 5%	1/10W 1/10W	* CN101	1-508-505-11	PIN, CONNECTOR	ז וער		
11002	1 210-032-11	MILIAL VIIIF	U.ZIX	J /0	1/1044	•					

## HCD-EC55/EC77/GX99 Ver. 1.2

HI-AMP JACK KEY-CD

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
		< DIODE >				R124	1-216-841-11	METAL CHIP	47K	5%	1/10W
D121 D151		DIODE MAZ805				R125	1-216-845-11	METAL CHIP	100K	5%	(EC55) 1/10W (EC55)
D152		DIODE MA111-				R126	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EC55)
IC101	6-705-620-01	IC STK433-060	(E055)			R127	1-216-833-11	METAL CHIP	10K	5%	1/10W (EC55)
IC101		IC STK433-070		EXCEPT US,C	(ND)	R128	1-216-833-11	METAL CHIP	10K	5%	1/10W
IC102	6-600-580-01	IC STK433-090-	È (EC77	7: US, CND/G)	X99)	R129	1-216-821-11	METAL CHIP	1K	5%	1/10W
		TRANSISTOR				R130	1-247-807-31	CARBON	100	5%	1/4W
		< TRANSISTOR >	>				1_216_261_21	METAL OXIDE	(EC55: AEP, 0.22	UK/EC// 5%	: AEP, RU) 2W F
Q101	8-729-600-22	TRANSISTOR	2SA1	235-F (EC55)		ZENIJI	1-210-301-31	WILIAL OXIDL	0.22	J /0	2 V V I
Q102		TRANSISTOR		623-L5L6		<b>△</b> R152	1-216-361-31	METAL OXIDE	0.22	5%	2W F
Q151	6-551-270-01	TRANSISTOR	2SA20	026		R155	1-216-813-11	METAL CHIP	220	5%	1/10W
Q152	6-551-270-01	TRANSISTOR	2SA20	026		R156	1-216-813-11		220	5%	1/10W
						R159	1-216-833-11		10K	5%	1/10W
		< RESISTOR >				R160	1-216-833-11	METAL CHIP	10K	5%	1/10W
R101	1-216-813-11	METAL CHIP	220	5%	1/10W	R161	1-216-833-11	METAL CHIP	10K	5%	1/10W
				(EC77: US, C		R162	1-216-833-11	METAL CHIP	10K	5%	1/10W
R101	1-216-824-11	METAL CHIP	1.8K	5%	1/10W	R165	1-216-833-11	METAL CHIP	10K	5%	1/10W
			(	(EC77: E2, E3	, E51, MX)	R166	1-216-833-11	METAL CHIP	10K	5%	1/10W
R101	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R167	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R102	1-216-813-11	METAL CHIP	220	(EC55/EC77 5%	1/10W	R168	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
11102	1 210 010 11	WEIAL OIII	220	(EC77: US, C		1		******			
R102	1-216-824-11	METAL CHIP	1.8K	5%	1/10W						
			(	(EC77: E2, E3	, E51, MX)			JACK BOARD *******			
R102	1-216-825-11	METAL CLID	2.2K	5%	1/10W			****			
N I UZ	1-210-025-11	WILTAL OTHE	2.21	(EC55/EC77				< CAPACITOR >			
R103	1-216-830-11	METAL CHIP	5.6K	5%	1/10W			( 0/11 / 10 / 10 / 1			
					(EC55)	C401		CERAMIC CHIP	0.1uF		25V
R103	1-216-834-11	METAL CHIP	12K	5%	1/10W	C402	1-164-156-11	CERAMIC CHIP	0.1uF	==/	25V
D400	1 010 005 11	METAL OLUD	451/	,	': AEP, RU)	C403	1-216-837-11		22K	5%	1/10W
R103	1-216-835-11	METAL CHIP	15K (FC77:	5% EXCEPT AEP.	1/10W	C404 C405	1-216-837-11	METAL CHIP CERAMIC CHIP	22K 0.001uF	5% 10%	1/10W 50V
R104	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	0403	1 102 304 11	OLITAWIO OTIII	0.00141	10 /0	30 V
					(EC55)	C406	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R104	1-216-834-11	METAL CHIP	12K	5%	1/10W			< JACK >			
R104	1-216-835-11	METAL CHID	15K	`.	': AEP, RU)	J401	1_566_922_51	JACK (AUDIO IN	١		
N104	1-210-033-11	WILTAL OTHE		5% EXCEPT AEP,	1/10W RH/GX99)	J401		JACK (AUDIO IN			
R105	1-216-841-11	METAL CHIP	47K	5%	1/10W			******		*****	*****
R106	1-216-841-11		47K	5%	1/10W						
R107	1-216-821-11	METAL CHIP	1K	5%	1/10W			KEY-CD BOARD			
								*****			
R108	1-216-821-11		1K	5%	1/10W						
R109	1-216-809-11	METAL CHIP	100	5%	1/10W (EC55)			< RESISTOR >			
R109	1-216-864-11	SHORT CHIP	0 (EC	77/GX99)	(L033)	R407	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R110	1-216-809-11		100	5%	1/10W	R408	1-216-829-11		4.7K	5%	1/10W
					(EC55)	R409	1-216-833-11		10K	5%	1/10W
R110	1-216-864-11	SHORT CHIP	0 (EC	77/GX99)		R410	1-216-837-11	METAL CHIP	22K	5%	1/10W
D.1.1.1	1 010 011 11	METAL OLUB	4717	<b>5</b> 0/	4 (4 0) 14	R411	1-216-841-11	METAL CHIP	47K	5%	1/10W
R111	1-216-841-11	METAL CHIP	47K	5%	1/10W			∠ CIMITOLI .			
R112 R119	1-216-841-11 1-216-813-11	METAL CHIP METAL CHIP	47K 220	5% 5%	1/10W 1/10W			< SWITCH >			
R120			220	5% 5%	1/10W	SW306	1-762-875-21	SWITCH, KEYBO	ישאט (חופר	1)	
R120	1-216-813-11		220	5%	1/10W			SWITCH, KEYBO			
	. 2.0 010 11			J 70	.,	SW308		SWITCH, KEYBO	•	,	
R122	1-216-813-11	METAL CHIP	220	5%	1/10W	1		SWITCH, KEYBO	`	,	
R123	1-216-841-11	METAL CHIP	47K	5%	1/10W	SW310	1-762-875-21	SWITCH, KEYBO	ARD (DISC		
					(EC55)	******	********	******	*******	******	*****
						I					

KEY-LEFT KEY-RIGHT LOW-AMP

D.C.N.	Deat No.	December			Damada	L D. C N.	Doub No	December			Damada
Ref. No.	<u>Part No.</u>	Description KEY-LEFT BOARD	)		<u>Remark</u>	Ref. No. C113	Part No. 1-126-968-11	Description FLECT	100uF	20%	<u>Remark</u> 50V
		******						(E	C77: AEP,	RU, E2, E	3, E51, MX)
		< CONNECTOR >				C113	1-128-576-11	ELECT	100uF (1	20% EC77: US,	63V CND/GX99)
CN401	1-815-552-11	PIN, CONNECTOR	R (PWR) 4P			C115	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
011101	1 010 002 11		. (1 1115)			C116	1-162-968-11			ıF 10%	50V
		< LED >				C118 C119	1-162-968-11 1-216-864-11		0.0047t 0	ıF 10%	50V
LED302	6-501-483-01	DIODE SLR-325	VCT31P (S	TANDBY)		C120 C151	1-216-864-11 1-162-968-11	SHORT CHIP CERAMIC CHIP	0 0 0047i	ıF 10%	50V
		< RESISTOR >									
R404	1-216-821-11	METAL CHIP	1K	5%	1/10W	C152 C153	1-162-968-11 1-100-566-91	CERAMIC CHIP CERAMIC CHIP	0.0047t 0.1uF	ıF 10% 10%	50V 25V
		< SWITCH >						< CONNECTOR >			
		SWITCH, KEYBOA									
		SWITCH, KEYBOA			*****	* CN101	1-569-505-11	PIN, CONNECTOR	R 10P		
		KEY-RIGHT BOAR	חי					< DIODE >			
		********				D121	6-501-730-01	DIODE MAZ805			
		< CONNECTOR >				D151 D152	6-500-335-01 8-719-404-50	DIODE MC2838- DIODE MA111-1			
CN403	1-815-550-11	PIN, CONNECTOR	R (PWB) 2P					< IC >			
		< RESISTOR >	( )			IC101	6-705-621-01	IC STK433-070	(FC77: F)	CEPT US	CND)
D414	1 016 005 11		0.01/	E0/	1/1014	IC102		IC STK433-090-			
R414 R415 R416	1-216-825-11 1-216-829-11 1-216-833-11	METAL CHIP	2.2K 4.7K 10K	5% 5% 5%	1/10W 1/10W 1/10W			< TRANSISTOR >			
R417	1-216-837-11	METAL CHIP	22K	5%	1/10W	Q101	8-729-600-22		2SA123		
R418	1-216-841-11	METAL CHIP	47K	5%	1/10W	Q102 Q151	8-729-120-28 6-551-270-01		2SC162 2SA202		
		< SWITCH >				Q152	6-551-270-01	TRANSISTOR	2SA202	16	
SW314	1-762-875-21	SWITCH, KEYBOA			IIC MODE)			< RESISTOR >			
		SWITCH, KEYBOA	\RD (□ +)		NG MODE)	R101	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
		SWITCH, KEYBOA SWITCH, KEYBOA				R101	1-216-824-11	METAL CHIP	1.8K	EC77: US, 5%	CND/GX99) 1/10W
		SWITCH, KEYBOA	, ,	, ******	******	R101	1-216-825-11	METAL CHID	(E 2.2K	C77: E2, E 5%	3, E51, MX) 1/10W
4-1-1-1-1-1-1										(EC7	77: AEP, RU)
		LOW-AMP BOARI	`	(99)		R102	1-216-823-11	METAL CHIP	1.5K (I	5% EC77: US,	1/10W CND/GX99)
		< CAPACITOR >				R102	1-216-824-11	METAL CHIP	1.8K (E	5% C77: E2, E	1/10W 3, E51, MX)
C101	1-126-960-11	ELECT	1uF	20%	50V	R102	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
C102 C103	1-126-960-11	ELECT CERAMIC CHIP	1uF 470PF	20% 5%	50V 50V	R103	1-216-834-11	METAL CHID	12K	(EC7 5%	77: AEP, RU) 1/10W
C104	1-164-315-11	CERAMIC CHIP	470PF	5%	50V					(EC7	77: AEP, RU)
C105	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	R103	1-216-835-11	METAL CHIP	15K (E	5% C77: E2, E	1/10W 3, E51, MX)
C106 C107	1-162-927-11 1-126-947-11	CERAMIC CHIP	100PF 47uF	5% 20%	50V 35V	R104	1-216-834-11	METAL CHIP	12K	5% (FC7	1/10W 77: AEP, RU)
C108	1-126-947-11	ELECT	47uF	20%	35V	R104	1-216-835-11	METAL CHIP	15K	5%	1/10W
C109 C110		CERAMIC CHIP CERAMIC CHIP	3PF 3PF	0.25PF 0.25PF					(E	U//: E2, E	3, E51, MX)
						R105 R106	1-216-841-11 1-216-841-11		47K 47K	5% 5%	1/10W 1/10W
C111	1-126-968-11	ELECT	100uF	20%	50V	R100	1-216-821-11		47K 1K	5%	1/10W
		(EC	277: AEP, R	U, E2, E3,	, E51, MX)	R108	1-216-821-11	METAL CHIP	1K	5%	1/10W
C111	1-128-576-11	ELECT	100uF	20%	63V	R109	1-216-864-11	SHORT CHIP	0		
			(EC	r : us, c	ND/GX99)	R110	1-216-864-11	SHORT CHIP	0		

# HCD-EC55/EC77/GX99 Ver. 1.2

LOW-AMP MAIN

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
R111	1-216-841-11	METAL CHIP	47K	5%	1/10W	C616	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
R112	1-216-841-11		47K	5%	1/10W	0010	1 100 000 01	OLI II III III OIIII	0.141		EC77/GX99)
R119	1-216-813-11	METAL CHIP	220	5%	1/10W	C617	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
R120	1-216-813-11		220	5%	1/10W	C618	1-100-566-91	CERAMIC CHIP		10%	25V
11120	1 210 010 11	WILIAL OITH	220	3 /0	1/1000	C620	1-104-658-91	ELECT	100uF	20%	10V
R121	1-216-813-11	METAL CHIP	220	5%	1/10W	C621	1-137-749-11	MYLAR	0.1uF	20 /0	100V
R121	1-216-813-11		220	5% 5%	1/10W	0021	1-13/-/49-11	IVITLAN	U.TUF		1007
R123	1-216-841-11		47K	5% 5%	1/10W	C622	1-114-471-51	ELECT	3300uF	20%	63V
R123	1-216-841-11		47K 47K	5%	1/10W	0022	1-114-471-31		(EC77: US. (		
R124	1-216-845-11	METAL CHIP	100K	5%	1/10W	C622	1-128-550-11	ELECT	2200uF	20%	50V
n 120	1-210-045-11	WEIAL CHIP	TUUK	3 70	1/1000	0022	1-120-330-11	ELEUI	2200ur	20%	(EC55)
R126	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C623	1-137-749-11	MYLAR	0.1uF		(LU33) 100V
R120	1-216-833-11		4.7K 10K	5% 5%	1/10W	C626	1-137-749-11	ELECT	3300uF	20%	63V
R128	1-216-833-11			5% 5%	1/10W	0020	1-114-471-31		(EC77: US, (		
R120	1-216-821-11		10K 1K	5% 5%	1/10W	C626	1 100 550 11		2200uF	20%	50V
			100	5% 5%		0020	1-128-550-11	ELEUI	2200ur	20%	
R130	1-247-807-31	CARBUN	100		1/4W						(EC55)
				(EU/	7: AEP, RU)	0007	1 100 040 11	FLEOT	0000	000/	05)/
A D151	1 010 001 01	METAL OVIDE	0.00	F0/	OW E	C627	1-126-943-11		2200uF	20%	25V
<b> A</b> R151	1-216-361-31	METAL OXIDE	0.22	5%	2W F	C628	1-126-942-61	ELECT	1000uF	20%	25V
<b> A</b> R152	1-216-361-31		0.22	5%	2W F	C630	1-126-947-11		47uF	20%	35V
R155	1-216-813-11		220	5%	1/10W	C631	1-126-933-11		100uF	20%	16V
R156	1-216-813-11		220	5%	1/10W	C632	1-126-963-11	ELECT	4.7uF	20%	50V
R159	1-216-833-11	METAL CHIP	10K	5%	1/10W						
5.00				==-/		C633	1-110-563-11	CERAMIC CHIP		10%	16V
R160	1-216-833-11		10K	5%	1/10W	C634	1-110-563-11	CERAMIC CHIP		10%	16V
R161	1-216-833-11	METAL CHIP	10K	5%	1/10W	C635	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
R162	1-216-833-11		10K	5%	1/10W	0000	4 400 000 44	FLEOT	4	,	T US, CND)
R165	1-216-833-11		10K	5%	1/10W	C636	1-126-960-11		1uF	20%	50V
R166	1-216-833-11	METAL CHIP	10K	5%	1/10W	C637	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
D407	1 010 005 11	METAL OLUB	0.017	<b>5</b> 0/	4404	0000	1 110 500 11	0504440 01115	0.000 5	100/	401
R167	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C638	1-110-563-11	CERAMIC CHIP		10%	16V
R168	1-216-825-11		2.2K	5%	1/10W	C639	1-162-968-11	CERAMIC CHIP			50V
*******	*********	*******	******	******	********	C640	1-162-968-11	CERAMIC CHIP			50V
			01401575	(0)(00)		C641	1-126-961-11	ELECT	2.2uF	20%	50V
	Δ-171X-5H/-Δ										
		MAIN BOARD, CO		` ,	OND)	0044	1 100 000 11	FLEOT	,		EP, UK, RU)
	A-1218-539-A	MAIN BOARD, CO	OMPLETE	EC77: US	, ,	C641	1-126-962-11	ELECT	3.3uF	20%	50V
	A-1218-539-A A-1218-580-A	MAIN BOARD, CO	OMPLETE (	EC77: US (EC77: AE	P, RU)	C641	1-126-962-11	ELECT	,	20%	,
	A-1218-539-A A-1218-580-A A-1218-600-A	MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO	OMPLETE ( OMPLETE ( OMPLETE (	`(EC77: US (EC77: AE (EC77: E3	P, RU)				3.3uF `	20% (Al	50V EP, UK, RU)
	A-1218-539-A A-1218-580-A A-1218-600-A	MAIN BOARD, CO	OMPLETE ( OMPLETE ( OMPLETE (	`(EC77: US (EC77: AE (EC77: E3	P, RU)	C642	1-164-227-11	CERAMIC CHIP	3.3uF 0.022uF	20% (Al 10%	50V EP, UK, RU) 25V
	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A	MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO	OMPLETE ( OMPLETE ( OMPLETE ( OMPLETE (	(EC77: US (EC77: AE (EC77: E3 (EC77: E2	EP, RU) B) P, E51, MX)				3.3uF 0.022uF	20% (Al 10% 10%	50V EP, UK, RU) 25V 6.3V
	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-693-A	MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO	OMPLETE ( OMPLETE ( OMPLETE ( OMPLETE (	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US	EP, RU) (1) (2, E51, MX)	C642 C643	1-164-227-11 1-125-837-91	CERAMIC CHIP CERAMIC CHIP	3.3uF 0.022uF 1uF	20% (Al 10% 10% (EXCEP	50V EP, UK, RU) 25V 6.3V T US, CND)
	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A	MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO	OMPLETE ( OMPLETE ( OMPLETE ( OMPLETE ( OMPLETE ( OMPLETE (	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE	EP, RU) (1) (2) (2) (3) (4) (5) (5) (6) (7) (7) (7) (8) (7) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	C642 C643	1-164-227-11 1-125-837-91 1-126-960-11	CERAMIC CHIP CERAMIC CHIP ELECT	3.3uF 0.022uF 1uF 1uF	20% (Al 10% 10% (EXCEP 20%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V
	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A	MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO	OMPLETE (	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE	EP, RU) (1) (2) (2) (3) (4) (5) (5) (6) (7) (7) (7) (8) (7) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	C642 C643 C644 C645	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF 0.022uF 1uF 1uF 220PF	20% (Al 10% 10% (EXCEP 20% 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V
	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A	MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO	OMPLETE (	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE	EP, RU) (1) (2) (2) (3) (4) (5) (5) (6) (7) (7) (7) (8) (7) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	C642 C643	1-164-227-11 1-125-837-91 1-126-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF 0.022uF 1uF 1uF	20% (Al 10% 10% (EXCEP 20%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V
	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE (	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE	EP, RU) (1) (2) (2) (3) (4) (5) (5) (6) (7) (7) (7) (8) (7) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	C642 C643 C644 C645 C646	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-126-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT	3.3uF  0.022uF 1uF  1uF  220PF 1uF	20% (Al 10% 10% (EXCEP 20% 10% 20%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V
	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A	MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO MAIN BOARD, CO	OMPLETE (	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE	EP, RU) (1) (2) (2) (3) (4) (5) (5) (6) (7) (7) (7) (8) (7) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	C642 C643 C644 C645 C646	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-126-960-11 1-125-837-91	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  1uF	20% (AI 10% 10% (EXCEP 20% 10% 20%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 50V
0601	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2	P, RU) (1) (2) (3) (4) (5) (5) (5) (7) (7) (7) (7) (8) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	C642 C643 C644 C645 C646 C648	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-126-960-11 1-125-837-91 1-162-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  1uF 220PF	20% (AI 10% 10% (EXCEP 20% 10% 20%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 50V 6.3V 50V
C601	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-725-A A-1218-814-A	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2	P, RU)  1)  2, E51, MX)  3)  P, UK, RU)  2, E51, MX)	C642 C643 C644 C645 C646 C648 C649 C650	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-960-11 1-125-837-91	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF  220PF 1uF  1uF  220PF 1uF	20% (Al 10% 10% (EXCEP 20% 10% 20%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 50V 6.3V 50V 6.3V
C602	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-725-A A-1218-814-A	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( ATUF ATUF ATUF AZUF	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2	2P, RU) 2) 3; E51, MX) 5) 3P, UK, RU) 4; E51, MX) 35V 50V	C642 C643 C644 C645 C646 C648	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-126-960-11 1-125-837-91 1-162-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF  220PF 1uF  1uF  220PF 1uF	20% (AI 10% 10% (EXCEP 20% 10% 20% 10% 10% 5%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V
	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-725-A A-1218-814-A	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2	2P, RU) (2) (3) (4) (5) (5) (7) (7) (7) (7) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	C642 C643 C644 C645 C646 C648 C649 C650 C651	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  1uF 220PF 1uF 100PF	20% (AI 10% 10% (EXCEP 20% 10% 20% 10% 10% 5% (EXCEP	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND)
C602 C603	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-725-A A-1218-814-A 1-126-947-11 1-126-965-91 1-162-974-11	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( ATUF 22uF 0.01uF	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20%	35V 50V 50V 50V 50V 50V 50V	C642 C643 C644 C645 C646 C648 C649 C650	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-960-11 1-125-837-91	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  1uF 220PF 1uF 100PF	20% (AI 10% 10% (EXCEP 20% 10% 20% 10% 10% 5%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V
C602	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-725-A A-1218-814-A 1-126-947-11 1-126-965-91 1-162-974-11	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( ATUF ATUF ATUF AZUF	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20%	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V	C642 C643 C644 C645 C646 C648 C649 C650 C651	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  1uF 220PF 1uF 1uF 1uF 1uF	20% (AI 10% 10% (EXCEP 20% 10% 20% 10% 10% 5% (EXCEP 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V
C602 C603 C604	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-725-A A-1218-814-A 1-126-947-11 1-126-965-91 1-100-566-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  1uF 220PF 1uF 1uF 1uF 1uF	20% (AI 10% 10% (EXCEP 20% 10% 20% 10% 10% 5% (EXCEP 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V 50V
C602 C603	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-725-A A-1218-814-A 1-126-947-11 1-126-965-91 1-100-566-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( ATUF 22uF 0.01uF	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C649 C650 C651 C652	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  1uF 220PF 1uF 100PF  1uF	20% (AI 10% 10% (EXCEP 20% 10% 20% 10% 10% 5% (EXCEP 10% 5% (EXCEP	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V T US, CND)
C602 C603 C604	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-725-A A-1218-814-A 1-126-947-11 1-126-965-91 1-100-566-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651 C652 C653	1-164-227-11 1-125-837-91 1-126-960-11 1-126-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  1uF 100PF  1uF  100PF  1uF	20% (AI 10% 10% 10% (EXCEP 20% 10% 20%  10% 10% 5% (EXCEP 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V T US, CND) 6.3V
C602 C603 C604 C605	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A 1-126-947-11 1-126-965-91 1-162-974-11 1-100-566-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 2007 ( 20	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651 C652 C653	1-164-227-11 1-125-837-91 1-126-960-11 1-126-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  1uF 220PF 1uF 100PF  1uF 100PF  1uF 220PF	20% (AI 10% 10% 10% 20% 10% 20% 10% 5% (EXCEP 10% 5% (EXCEP 10% 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V T US, CND) 6.3V
C602 C603 C604	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A 1-126-947-11 1-126-965-91 1-162-974-11 1-100-566-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651 C652 C653	1-164-227-11 1-125-837-91 1-126-960-11 1-126-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF 100PF  1uF 100PF  1uF 220PF 1uF	20% (AII 10% 10% (EXCEP 20% 10% 10% 5% (EXCEP 10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V T US, CND) 6.3V
C602 C603 C604 C605	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A 1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-162-974-11	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651 C652 C653	1-164-227-11 1-125-837-91 1-126-960-11 1-126-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF 100PF  1uF 100PF  1uF 220PF 1uF	20% (AI 10% 10% 10% 20% 10% 20% 10% 5% (EXCEP 10% 5% (EXCEP 10% 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V T US, CND) 6.3V
C602 C603 C604 C605 C606	A-1218-539-A A-1218-580-A A-1218-600-A A-1218-637-A A-1218-725-A A-1218-814-A 1-126-947-11 1-126-965-91 1-100-566-91 1-162-974-11 1-100-566-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I 10% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651 C652 C653 C654 C655 C656 C658	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-125-837-91	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  100PF  1uF  100PF  1uF  100PF  1uF  100PF	20% (AII 10% 10% (EXCEP 20% 10% 10% 10% 5% (EXCEP 10% 5% (EXCEP 10% 10% 10% 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V T US, CND) 6.3V T US, CND) 6.3V 50V T US, CND) 6.3V 50V 6.3V
C602 C603 C604 C605 C606 C607 C608	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91  1-162-974-11 1-100-566-91 1-100-566-91 1-100-566-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651 C652 C653 C654 C655 C656 C658	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF 100PF  1uF 100PF  1uF 220PF 1uF 220PF 1uF 220PF	20% (AII 10% 10% 10% 20% 10% 20% 10% 5% (EXCEP 10% 5% (EXCEP 10% 10% 10% 10% 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V T US, CND) 6.3V 50V T US, CND) 6.3V 50V 50V 50V
C602 C603 C604 C605 C606 C607 C608 C609	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I 10% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651 C652 C653 C655 C656 C658	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  100PF  1uF 100PF  1uF 220PF 1uF 220PF 1uF 220PF 1uF	20% (AI 10% 10% 10% 20% 10% 20% 10% 5% (EXCEP 10% 5% (EXCEP 10% 10% 10% 10% 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V T US, CND) 6.3V 50V T US, CND) 6.3V 50V 6.3V 50V
C602 C603 C604 C605 C606 C607 C608	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I 10% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C646 C650 C651 C652 C653 C655 C656 C658 C659 C660 C661	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11 1-126-960-11 1-162-960-11 1-162-960-11 1-162-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT	3.3uF  0.022uF 1uF  1uF 220PF 1uF  100PF  1uF  100PF  1uF  220PF 1uF  220PF 1uF  100PF	20% (AI 10% 10% 10% 20% 10% 20% 10% 5% (EXCEP 10% 5% (EXCEP 10% 10% 10% 10% 10% 20%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V T US, CND) 6.3V 50V T US, CND) 6.3V 50V 6.3V 50V 6.3V 50V 6.3V 50V
C602 C603 C604 C605 C606 C607 C608 C609 C610	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I 10% (I	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C646 C650 C651 C652 C653 C655 C656 C658 C659 C660 C661 C662	1-164-227-11 1-125-837-91 1-126-960-11 1-126-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11 1-126-960-11 1-126-960-11 1-126-964-11 1-100-566-91	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF  100PF  1uF  100PF  1uF 220PF 1uF 220PF 1uF 100PF  1uF 220PF 1uF 1uF	20% (AI 10% 10% 10% 20% 10% 20% 10% 5% (EXCEP 10% 5% (EXCEP 10% 10% 10% 10% 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V 50V 6.3V 50V 6.3V 50V 6.3V 50V 6.3V 50V 6.3V 50V
C602 C603 C604 C605 C606 C607 C608 C609 C610	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91 1-102-974-11 1-102-974-11 1-127-715-91	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I 10% (I 10%	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C646 C650 C651 C652 C653 C655 C656 C658 C659 C660 C661	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11 1-126-960-11 1-162-960-11 1-162-960-11 1-162-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT	3.3uF  0.022uF 1uF  1uF 220PF 1uF  100PF  1uF  100PF  1uF  220PF 1uF  220PF 1uF  100PF	20% (AI 10% 10% 10% 20% 10% 20% 10% 5% (EXCEP 10% 5% (EXCEP 10% 10% 10% 10% 10% 20%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V T US, CND) 6.3V 50V T US, CND) 6.3V 50V 6.3V 50V 6.3V 50V 6.3V 50V
C602 C603 C604 C605 C606 C607 C608 C609 C610	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91 1-102-974-11 1-127-715-91 1-127-715-91	MAIN BOARD, COMAIN COMAIN COMAIN COMAIN COMAIN COMAIN BOARD, COMAIN COMA	OMPLETE OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I) 10% (I) 10% (I) 10% 10%	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C646 C650 C651 C652 C653 C655 C656 C658 C659 C660 C661 C662 C663	1-164-227-11 1-125-837-91 1-126-960-11 1-126-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11 1-126-960-11 1-126-960-11 1-126-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT	3.3uF  0.022uF 1uF  1uF 220PF 1uF  100PF  1uF  100PF  1uF 220PF 1uF 220PF 1uF 1uF 1uF 220PF 1uF 1uF	20% (AI 10% 10% 10% 20% 10% 20% 10% 5% (EXCEP 10% 10% 10% 10% 10% 10% 20%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V 50V 6.3V 50V 6.3V 50V 6.3V 50V 6.3V 50V 6.3V 50V 6.3V 50V 6.3V 50V
C602 C603 C604 C605 C606 C607 C608 C609 C610 C611 C612 C613	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-100-566-91 1-100-566-91 1-102-974-11 1-127-715-91 1-127-715-91 1-126-964-11	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I 10% 10% 10%	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C646 C650 C651 C652 C653 C654 C655 C656 C658 C659 C660 C661 C662 C663	1-164-227-11 1-125-837-91 1-126-960-11 1-126-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11 1-126-960-11 1-126-960-11 1-126-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT ELECT	3.3uF  0.022uF 1uF  1uF 220PF 1uF  1uF 100PF  1uF 220PF 1uF 100PF  1uF 220PF 1uF 1uF 1uF 1uF 210PF 1uF 1uF 1uF 1uF 1uF 1uF 1uF	20% (AII 10% 10% (EXCEP 20% 10% 10% 5% (EXCEP 10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V 50V T US, CND) 6.3V 50V 6.3V 50V 50V 50V 50V 50V 50V 50V 50V 50V 50
C602 C603 C604 C605 C606 C607 C608 C609 C610 C611 C612 C613 C614	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-100-566-91 1-102-974-11 1-127-715-91 1-127-715-91 1-126-964-11 1-126-963-11	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I 10% 10% 10% 10% 10% 20%	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C646 C650 C651 C652 C653 C654 C655 C656 C658 C659 C660 C661 C662 C663	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT E	3.3uF  0.022uF 1uF  1uF 220PF 1uF 100PF  1uF 220PF 1uF 100PF  1uF 220PF 1uF 1uF 220PF 1uF 1uF 1uF 1uF 1uF 1uF	20% (AII 10% 10% (EXCEP 20% 10% 10% 5% (EXCEP 10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	50V EP, UK, RU) 25V 6.3V T US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V 50V T US, CND) 6.3V 50V 6.3V 50V 50V 50V 50V 50V 50V 50V 50V 50V 50
C602 C603 C604 C605 C606 C607 C608 C609 C610 C611 C612 C613	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-100-566-91 1-102-974-11 1-127-715-91 1-127-715-91 1-126-964-11 1-126-963-11	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I 10% (I 10% 10% 10% 10% 10%	25V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651 C652 C653 C654 C655 C656 C658 C666 C661 C662 C663 C664 C665 C666 C666 C666	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT ELECT ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF 100PF  1uF 220PF 1uF 100PF  1uF 220PF 1uF 1uF 1uF 220PF 1uF 1uF 220PF 1uF 1uF 220PF 10uF 0.1uF 1uF	20% (AII 10% 10% (EXCEP 20% 10% 10% 5% (EXCEP 10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	50V EP, UK, RU) 25V 6.3V 50V 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V 50V T US, CND) 6.3V 50V 6.3V 50V 50V 50V 50V 50V 50V 50V 50V 50V 50
C602 C603 C604 C605 C606 C607 C608 C609 C610 C611 C612 C613 C614	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-100-566-91 1-102-974-11 1-127-715-91 1-127-715-91 1-126-964-11 1-126-963-11	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I 10% (I 10% 10% 10% 10% 10%	35V 50V 50V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651 C652 C653 C654 C655 C656 C658 C659 C660 C661 C662 C663 C664 C665 C666 C666 C666	1-164-227-11 1-125-837-91 1-126-960-11 1-126-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT	3.3uF  0.022uF 1uF  1uF 220PF 1uF 100PF  1uF 100PF  1uF 220PF 1uF 10uF 1uF 220PF 1uF 1uF 220PF 10uF 0.1uF 1uF 1uF 1uF 1uF 1uF 1uF 1uF 1uF 1uF	20% (AII 10% 10% (EXCEP 20% 10% 10% 5% (EXCEP 10% 10% 10% 10% 10% 10% 10% 20% 20% 20% 20% 20% 20% 20% 20% 20% 2	50V EP, UK, RU) 25V 6.3V 1T US, CND) 50V 50V 50V 6.3V 50V 1T US, CND) 6.3V 50V 1T US, CND) 6.3V 50V 6.3V 50V 50V 50V 50V 50V 50V 50V 50V 50V 50
C602 C603 C604 C605 C606 C607 C608 C609 C610 C611 C612 C613 C614	A-1218-539-A A-1218-600-A A-1218-637-A A-1218-693-A A-1218-725-A A-1218-814-A  1-126-947-11 1-126-965-91 1-100-566-91 1-100-566-91 1-100-566-91 1-102-974-11 1-127-715-91 1-127-715-91 1-126-964-11 1-126-963-11	MAIN BOARD, COMAIN BOARD, COMA	OMPLETE ( OMPLET	(EC77: US (EC77: AE (EC77: E3 (EC77: E2 (EC55: US (EC55: AE (EC55: E2 20% 20% (I 10% (I 10% (I 10% 10% 10% 10% 10%	25V 50V 50V 50V 50V 50V 50V 50V 5	C642 C643 C644 C645 C646 C648 C649 C650 C651 C652 C653 C654 C655 C656 C658 C666 C661 C662 C663 C664 C665 C666 C666 C666	1-164-227-11 1-125-837-91 1-126-960-11 1-162-960-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-927-11 1-125-837-91 1-162-960-11 1-125-837-91 1-162-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11 1-126-960-11	CERAMIC CHIP CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT CERAMIC CHIP ELECT ELECT ELECT CERAMIC CHIP	3.3uF  0.022uF 1uF  1uF 220PF 1uF 100PF  1uF 220PF 1uF 100PF  1uF 220PF 1uF 1uF 220PF 1uF 1uF 220PF 10uF 0.1uF 1uF 1uF 220PF 10uF 0.1uF 1uF 1uF 1uF 1uF 1uF 1uF 1uF 1uF 1uF	20% (All 10% 10% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 10% 20% 20% 20% 20% 20% 20% 20% 20% 20% 2	50V EP, UK, RU) 25V 6.3V 7 US, CND) 50V 50V 6.3V 50V 6.3V 50V T US, CND) 6.3V 50V T US, CND) 6.3V 50V 6.3V 50V 50V 50V 50V 50V 50V 50V 50V 50V 50

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
C669	1-126-923-91	ELECT	220uF	20%	10V	C805	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C670	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C806	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
				CEPT AE	P, UK, RU)	C807	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C671	1-104-658-91		100uF	20%	10V	C808	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C673	1-126-925-91		470uF	20%	10V						
C675	1-126-960-11	ELECT	1uF	20%	50V	C809	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
0070	4 400 000 44	EL EOT		000/	501/	C810	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C676	1-126-960-11		1uF	20%	50V	C811	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C677	1-135-516-11		3300uF 77: EXCEPT	20%	63V	C814	1-162-968-11	CERAMIC CHIP	0.0047uF		50V US, CND)
C678	1-135-516-11		3300uF	20%	63V	C814	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
0070	1-100-010-11		77: EXCEPT			0014	1-102-370-11	CENAIMIO OTIII	0.0141		(US, CND)
C679	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V						(00, 0145)
C680	1-162-966-11		0.0022uF		50V	C815	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
											US, CND)
C681	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C815	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C682	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V						(US, CND)
C683	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C816	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C684	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C817	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
			,		P, UK, RU)	C819	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C684	1-162-919-11	CERAMIC CHIP	22PF	5%	50V						
			(EC77: EXC	EPT AEP,	RU/GX99)	C820	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
				==./	===	C821	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C684	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	C822	1-126-965-91	ELECT	22uF	20%	50V
0005		0504440 01110	4005	•	P, UK, RU)	C823	1-126-923-91	ELECT	220uF	20%	10V
C685	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C824	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C685	1 160 010 11	CERAMIC CHIP	22PF	5%	P, UK, RU) 50V	C826	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
0000	1-102-919-11	CENAIVIIC CHIP	(EC77: EXCI			C827	1-162-964-11	CERAMIC CHIP	0.001uF 0.047uF	10%	16V
C685	1 164 015 11	CERAMIC CHIP	470PF	5%	50V	C828	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
0000	1-104-313-11	CENAIVIIC CHIP	4/077		P, UK, RU)	C829	1-102-927-11	CERAMIC CHIP	0.47uF	10%	6.3V
C686	1-162-015-11	CERAMIC CHIP	10PF	0.5PF	50V	C830	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V
0000	1 102 313 11	OLITAWIO OTIII			P, UK, RU)	0000	1 102 307 11	OLITAWIO OTIII	211	0.2311	30 V
			(2000. 27	.021 1712	1, 011, 110)	C831	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C686	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	C832	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
			(EC77: EXCI			C833	1-126-923-91	ELECT	220uF	20%	10V
C687	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C834	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
			(EX	CEPT AE	P, UK, RU)	C835	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C688	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V						
					P, UK, RU)	C836	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C689	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C837	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C690	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C838	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
						C840	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C691		CERAMIC CHIP	0.1uF	10%	25V	C841	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C692		CERAMIC CHIP	0.01uF	10%	25V	0040		0504440 01110	0.4 5		051/
C693		CERAMIC CHIP	0.1uF	10%	25V	C843		CERAMIC CHIP	0.1uF	400/	25V
C694		CERAMIC CHIP	0.1uF	10%	25V	C844	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C695	1-120-037-91	CERAMIC CHIP	1uF	10%	6.3V	C845 C846	1-115-467-11 1-162-970-11	CERAMIC CHIP CERAMIC CHIP	0.22uF 0.01uF	10% 10%	10V 25V
C696	1-125-837-01	CERAMIC CHIP	1uF	10%	6.3V	C847	1-102-570-11	CERAMIC CHIP	0.01uF	10%	25V
C698		CERAMIC CHIP	0.001uF	10%	50V	0017	1 100 000 01	OLI II MINIO OTTII	o.rui	1070	201
0000		02			P. UK. RU)	C848	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C699	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C849	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
				(AE	P, UK, RU)	C850	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C700	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V						
				(AE	P, UK, RU)			< FILTER >			
C701	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V						
				(E	C77/GX99)	CF801	1-781-962-21	FILTER, CERAMIC	)		
0700	1 160 070 11	CEDAMIC CUID	0.01	100/	051/			. COMMECTOR .			
C702	1-102-970-11	CERAMIC CHIP	0.01uF	10% (F)	25V C77/GX99)			< CONNECTOR >			
C703	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	CN601	1-819-131-11	PIN, CONNECTOR	3P		
0,00	. 102 070 11	JET WANTO OTHE	o.o iui		C77/GX99)	* CN602	1-569-496-11	SOCKET, CONNEC		EC77/GX9	99)
C704	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	* CN603	1-569-496-11	SOCKET, CONNEC		2, 0,10	- /
		- +			C77/GX99)	CN604	1-819-136-11	PIN, CONNECTOR			
C802	1-126-933-11	ELECT	100uF	20%	16V	CN605	1-568-828-11	CONNECTOR, FFO			
C803		CERAMIC CHIP	1uF	10%	6.3V			,			
						CN606	1-784-731-11	CONNECTOR, FFO			
C804	1-162-918-11	CERAMIC CHIP	18PF	5%	50V	CN607	1-779-295-11	CONNECTOR, FFO	C (LIF (NON-	-ZIF)) 27I	)

# HCD-EC55/EC77/GX99 Ver. 1.2 MAIN

Ref. No.	Part No.	<u>Description</u> Remark	Ref. No.	Part No.	<u>Description</u>		<u>Remark</u>
CN608		CONNECTOR, FFC (LIF (NON-ZIF)) 21P	L603		COIL, AIR-CORE		
* CN801	1-506-680-11	PLUG, CONNECTOR (2.5MM) 3P (ANTENNA)	L604		COIL, AIR-CORE		
		DIODE	L801	1-456-596-11	COIL, MW OSC		
		< DIODE >	1 000	1 457 160 11	COIL DET		
D601	6-500-335-01	DIODE MC2838-T112-1	L802 L803	1-457-168-11	COIL, AIR-CORE		
D602	6-500-335-01		L804		COIL, AIR-CORE		
D603		DIODE MA111-TX (EC77/GX99)	L805		COIL, AM ANTENI	NA	
D604		DIODE MA111-TX			,		
D605	8-719-404-50	DIODE MA111-TX			< TRANSISTOR >		
DCOC	0.710.000.07	DIODE MOCCOCC	0001	0.700.007.00	TDANICICTOD	LATA 10000D AT	
D606 D607	8-719-000-07 6-501-046-01	DIODE MC2836 DIODE 1N5402-F46	Q601 Q602	8-729-037-03 8-729-120-28		KTA1266GR-AT	
D607		DIODE 1N5402-F46	Q603	8-729-120-28		2SC1623-L5L6 2SC1623-L5L6	
D609		DIODE 1N5402-F46	Q604	8-729-120-28		2SC1623-L5L6	
D610		DIODE 1N5402-F46	Q605	8-729-120-28		2SC1623-L5L6	
D611		DIODE 1N4002B	Q606	8-729-120-28		2SC1623-L5L6	
D612		DIODE 1N4002B	Q608	8-729-120-28		2SC1623-L5L6	
D614		DIODE MA111-TX	Q616	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
D615		DIODE 1N4002B	0017	0.700.400.00	TDANICICTOD	,	EPT US, CND)
D616	8-719-404-50	DIODE MA111-TX	Q617	8-729-120-28	TRANSISTUR	2SC1623-L5L6	EPT US, CND)
D617	6-500-335-01	DIODE MC2838-T112-1	Q618	8-729-600-22	TRANSISTOR	2SA1235-F	LFT US, UND)
D618	6-501-719-01		4010	0 7 20 000 22	110110101011	20/11200 1	
D619		DIODE 1N4002B	Q619	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
D620	8-719-063-79	DIODE 1N4002B	Q622	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
D621	6-501-722-01	DIODE MAZ8043GMLS0	Q624	8-729-036-86	TRANSISTOR	KTC3203Y-AT	
			Q801	8-729-120-28		2SC1623-L5L6	
D622		DIODE MAZ8082GMLS0	Q802	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
D623 D801	8-719-062-51		0000	C EEO 204 01	TDANICICTOD	000E477 T100	4
D801 D802	6-501-142-01	DIODE 5VG347A-TL-E DIODE 1PS226-115	Q803	6-550-304-01	TRANSISTUR	2SC5477-T122	-1
D802	6-501-369-01	DIODE SVC230-TB-E			< RESISTOR >		
2000	0 001 000 01	51052 010200 15 2			( TLOIOTON )		
D804	6-501-369-01	DIODE SVC230-TB-E	R601	1-216-817-11	METAL CHIP	470 5%	1/10W
D805		DIODE 1PS226-115	R603	1-216-793-11	METAL CHIP	4.7 5%	1/10W
D806	8-719-062-51	DIODE 1PS226-115					S, CND/GX99)
		FEDDITE DEAD .	R603	1-216-794-11		5.6 5%	1/10W
		< FERRITE BEAD >	R604	1-216-845-11		(EC55/EC77: EXC 100K 5%	1/10W
FB601	1-412-473-21	INDUCTOR (SMALL TYPE)	R605	1-216-799-11		15 5%	1/10W
. 200 .				. 2.0 . 00			S, CND/GX99)
		< FILTER >					
=:			R606	1-216-797-11	METAL CHIP	10 5%	1/10W
		CAP, PE TEREPHTHALATE 0.01MF	DC07	1 010 707 11	METAL OLUD	10 50/	(EC77/GX99)
FL802 FL803		FILTER, CERAMIC FILTER, BAND PASS	R607	1-216-797-11	WETAL CHIP	10 5%	1/10W (EC77/GX99)
1 2000	1-230-711-21	TIETEN, DAND TAGS	R608	1-216-797-11	METAL CHIP	10 5%	1/10W
		< IC >	1.000	. 2.0 . 0			(EC77/GX99)
			R609	1-216-829-11	METAL CHIP	4.7K 5%	` 1/10W ´
IC602	6-710-289-01	IC R2S15904SP	R610	1-216-829-11	METAL CHIP	4.7K 5%	1/10W
IC801	6-708-840-01	IC LV23003VA					
		IA OIZ	R611	1-216-797-11		10 5%	1/10W
		< JACK >	R612	1-216-797-11 1-216-833-11		10 5% 10K 5%	1/10W 1/10W
J601	1-815-025-11	JACK, PIN 1P (SUBWOOFER) (GX99)	R613 R614	1-216-833-11		10K 5% 10K 5%	1/10W
0001	1 013 023 11	UNON, I IN II (OODWOOTER) (UNOS)	R615	1-216-797-11		10 5%	1/10W
		< JUMPER RESISTOR >				370	., . • • •
			R616	1-216-828-11	METAL CHIP	3.9K 5%	1/10W
JR601	1-216-864-11						(EC55)
JR602	1-216-864-11	SHORT CHIP 0	R616	1-216-832-11	METAL CHIP	8.2K 5%	1/10W
JR603	1-216-296-11		DC1C	1_016 000 11	METAL CUID	,	C77: AEP, RU)
JR604	1-216-864-11	SHORT CHIP 0	R616	1-216-833-11	WE IAL UNIP	10K 5%	1/10W , E3, E51, MX)
		< COIL >	R616	1-216-835-11	METAL CHIP	15K 5%	1/10W
							S, CND/GX99)
L601		COIL, AIR-CORE (EC77/GX99)	R617	1-216-833-11	METAL CHIP	10K 5%	1/10W
L602	1-456-107-11	COIL, AIR-CORE (EC77/GX99)	I				

#### MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R618	1-216-833-11	•	10K	5%	1/10W	R677	1-216-833-11	METAL CHIP	10K	5%	1/10W
R619	1-216-828-11	METAL CHIP	3.9K	5%	1/10W	R678	1-216-841-11	METAL CHIP	47K	5%	1/10W
11013	1-210-020-11	WILIAL OITH	0.310	J /0	(EC55)	R679	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R619	1-216-832-11	METAL CHIP	8.2K	5%	1/10W	11073	1-210-023-11	WILIAL OITH	4.710		PT US, CND)
11013	1-210-002-11	WILIAL OITH	0.21		77: AEP, RU)	R680	1-216-829-11	METAL CHID	4.7K	5%	1/10W
R619	1-216-833-11	METAL CHIP	10K	5%	1/10W	noou	1-210-029-11	WIL TAL OTHE	4./ K		PT US, CND)
מוטח	1-210-033-11	WETAL CHIP			E3, E51, MX)					(EVOE	-1 US, UND)
R619	1-216-835-11	METAL CHID	15K	5%	1/10W	R681	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
nois	1-210-033-11	WIL TAL OTTE			, CND/GX99)	R682	1-216-833-11	METAL CHIP	10K	5%	1/10W
			(	EU11. US	, CND/GA99)	N002	1-210-033-11	WE TAL UTIF	IUK		PT US, CND)
Dean	1 016 000 11	METAL CHID	171/	5%	1/10W	DC02	1 016 006 11	METAL CHID	0.71/	,	1/10W
R620	1-216-829-11		4.7K			R683	1-216-826-11	METAL CHIP	2.7K	5% (EXCE)	
R621 R622	1-216-829-11	METAL CHIP METAL CHIP	4.7K 33K	5% 5%	1/10W 1/10W	R684	1-216-832-11	METAL CHIP	8.2K	(EXUE) 5%	PT US, CND)
R623	1-216-839-11 1-216-833-11		10K	5% 5%	1/10W	R685	1-216-841-11	METAL CHIP	6.2K 47K	5% 5%	1/10W 1/10W
R624	1-216-833-11		10K	5% 5%	1/10W	LOOD	1-210-041-11	WE TAL UTIF	4/K	370	1/1000
N024	1-210-033-11	WETAL CHIP	IUK	3 70	1/1000	R686	1-216-842-11	METAL CHIP	56K	5%	1/10W
DCOF	1 010 000 11	METAL OLUD	001/	F0/	4 /4 0 0 4	1					
R625	1-216-839-11	METAL CHIP	33K	5%	1/10W	R687	1-216-849-11	METAL CHIP	220K	5%	1/10W
R626	1-216-833-11	METAL CHIP	10K	5%	1/10W	R688	1-216-833-11	METAL CHIP	10K	5%	1/10W
R627	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R689	1-216-838-11	METAL CHIP	27K	5%	1/10W
R629	1-216-829-11		4.7K	5%	1/10W	R690	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R630	1-216-841-11	METAL CHIP	47K	5%	1/10W	D004	1 010 000 11	METAL CLUD	101/	F0/	4 /4 0 14
DC04	1 010 707 11	METAL OLUD	10	F0/	4 /4 0 0 4	R691	1-216-833-11	METAL CHIP	10K	5%	1/10W
R631	1-216-797-11	METAL CHIP	10	5%	1/10W	R692	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
D000	4 040 045 44	METAL OLUB	4001/		(EC77/GX99)	Dooo	4 040 000 44	METAL OLUB	`		AEP, UK, RU)
R632	1-216-845-11	METAL CHIP	100K	5%	1/10W	R692	1-216-833-11	METAL CHIP	10K	5%	1/10W
DCOO	1 010 045 11	METAL OLUD	1001/		(EC77/GX99)	DCOO	1 010 005 11	METAL CLUD			AEP, UK, RU)
R633	1-216-845-11	METAL CHIP	100K	5%	1/10W	R693	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
D004	1 040 404 44	OADDON	47		(EC77/GX99)	R694	1-216-833-11	METAL CHIP	10K	5%	1/10W
R634	1-249-401-11	CARBON	47	5%	1/4W					(EXCE	PT US, CND)
Door	1 040 404 44	OADDON	47		(EC77/GX99)	Door	4 040 000 44	METAL OLUB	0.71/	<b>5</b> 0/	4 (4 0) 4 (
R635	1-249-401-11	CARBON	47	5%	1/4W	R695	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
					(EC77/GX99)	Daga	1 010 000 11	METAL OLUB	4014		PT US, CND)
B000	1 040 404 44	0400011	47	<b>5</b> 0/	4/84	R696	1-216-833-11	METAL CHIP	10K	5%	1/10W
R636	1-249-401-11	CARBON	47	5%	1/4W	R697	1-216-821-11	METAL CHIP	1K	5%	1/10W
					(EC77/GX99)	R700	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R638	1-249-401-11		47	5%	1/4W	R701	1-216-864-11	SHORT CHIP	0 (US,	CND)	
R639	1-216-845-11		100K	5%	1/10W						
R640	1-216-845-11	METAL CHIP	100K	5%	1/10W	R702	1-216-864-11	SHORT CHIP	0 (US,	,	
R641	1-249-401-11	CARBON	47	5%	1/4W	R704	1-216-829-11		4.7K	5%	1/10W
						R706	1-216-813-11	METAL CHIP	220	5%	1/10W
R642	1-249-401-11		47	5%	1/4W	R707	1-216-813-11	METAL CHIP	220	5%	1/10W
R643	1-216-829-11		4.7K	5%	1/10W	R708	1-216-833-11	METAL CHIP	10K	5%	1/10W
R644	1-216-821-11		1K	5%	1/10W					==./	
R645	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R709	1-216-821-11		1K	5%	1/10W
50.45				=	(EC77: MX)	R710	1-216-839-11	METAL CHIP	33K	5%	1/10W
R645	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	D744	1 010 000 11	METAL OLUB	2014	<b>5</b> 0/	(GX99)
			(EU55/EU	//: EXCE	PT MX/GX99)	R711	1-216-839-11	METAL CHIP	33K	5%	1/10W
D040	1 010 000 11	METAL OLUB	400	<b>5</b> 0/	4 (4 0) 14	D740	1 010 000 11	METAL OLUB	200	<b>5</b> 0/	(GX99)
R646	1-216-809-11		100	5%	1/10W	R712	1-216-820-11	METAL CHIP	820	5%	1/10W
R647	1-216-797-11		10	5%	1/10W	D745	1 010 000 11	METAL OLUB	400	<b>5</b> 0/	(GX99)
R648	1-216-841-11		47K	5%	1/10W	R715	1-216-809-11	METAL CHIP	100	5%	1/10W
R649	1-216-825-11		2.2K	5%	1/10W	D740	1 010 001 11	METAL OLUB	417	<b>5</b> 0/	4 /4 00 44
R650	1-216-829-11	IVIETAL CHIP	4.7K	5%	1/10W	R716	1-216-821-11		1K	5%	1/10W
				=		R717	1-249-403-11	CARBON	68	5%	1/4W
R651	1-216-829-11		4.7K	5%	1/10W	R718	1-249-403-11		68	5%	1/4W
R652	1-216-809-11		100	5%	1/10W	R719	1-249-403-11		68	5%	1/4W
R655	1-216-864-11		0			R720	1-216-837-11	METAL CHIP	22K	5%	1/10W
R658	1-260-087-11		100	5%	1/2W						
R660	1-260-087-11	CARBON	100	5%	1/2W	R722	1-216-809-11		100	5%	1/10W
						R724	1-249-395-11	CARBON	15	5%	1/4W
R661	1-260-087-11		100	5%	1/2W					•	CND/GX99)
R662	1-260-087-11		100	5%	1/2W	R724	1-247-791-91	CARBON	22	5%	1/4W
R663	1-260-087-11		100	5%	1/2W	_			•		PT US, CND)
R664	1-260-087-11		100	5%	1/2W	R725	1-249-395-11	CARBON	15	5%	1/4W
R666	1-216-821-11	METAL CHIP	1K	5%	1/10W						CND/GX99)
						R725	1-247-791-91	CARBON	22	5%	1/4W
R667	1-216-841-11		47K	5%	1/10W				(EC55/E	C77: EXCE	PT US, CND)
R668	1-260-087-11		100	5%	1/2W						
R671	1-260-087-11		100	5%	1/2W	R726	1-249-395-11	CARBON	15	5%	1/4W
R674	1-249-401-11		47	5%	1/4W						CND/GX99)
R675	1-249-401-11	CARBON	47	5%	1/4W	R726	1-247-791-91	CARBON	22	5%	1/4W
<b>5 5 -</b> -	1 010 05= ::				4				(EC55/E	377: EXCEI	PT US, CND)
R676	1-216-833-11	METAL CHIP	10K	5%	1/10W						
											71

### MAIN PANEL

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
R727	1-216-829-11		4.7K	5%	1/10W						
R728	1-216-829-11		4.7K	5%	1/10W			< RELAY >			
R729	1-216-845-11	METAL CHIP	100K	5%	1/10W						
D704	4 040 000 44	METAL OLUB	100	<b>5</b> 0/	4 (4 0) 14	RY601		RELAY (EC77/GX	99)		
R731	1-216-809-11	METAL CHIP	100	5%	1/10W	RY602	1-755-307-11	RELAY			
R731	1-216-864-11	CHUBT CHIB	0 (EXCEPT	,	P, UK, RU)			< TRANSFORMER			
R731	1-216-809-11		100	5%	1/10W			< I KANSFURIVIER	1>		
117.02	1-210-009-11	WILIAL OITH	100		P, UK, RU)	T801	1-433-741-11	TRANSFORMER,	IF		
R732	1-216-864-11	SHORT CHIP	0 (EXCEPT			1001	1 400 741 11	TID II VOI OTTIVILIT,			
R801	1-216-809-11		100	5%	1/10W			< TERMINAL >			
R802	1-216-801-11	METAL CHIP	22	5%	1/10W	TB601	1-780-381-11	TERMINAL BOAR	D, PUSH (A	NTENNA)	4P
R803	1-216-825-11	METAL CHIP	2.2K	5%	1/10W				KER HIGH I		C77/GX99)
R804	1-216-801-11		22	5%	1/10W	TB602	1-536-708-81	TERMINAL BOAR			
R805	1-216-853-11		470K	5%	1/10W				(SPI	EAKER LO	W FREQ.)
R806	1-216-841-11	METAL CHIP	47K	5%	1/10W						
								< VIBRATOR >			
R807	1-216-837-11		22K	5%	1/10W						
R808	1-216-801-11		22	5%	1/10W	X801		VIBRATOR, CRYS	,	,	
R809	1-216-809-11		100	5%	1/10W	*******	*****	******	******	******	*****
R810	1-216-829-11		4.7K	5%	1/10W						
R811	1-216-845-11	METAL CHIP	100K	5%	1/10W			PANEL BOARD, C			
								PANEL BOARD, C			
R812	1-216-841-11		47K	5%	1/10W		A-1218-562-A	PANEL BOARD, C	OMPLETE (	EC77: AE	P)
R813	1-216-853-11		470K	5%	1/10W			PANEL BOARD, C			
R814	1-216-837-11		22K	5%	1/10W		A-1218-598-A	PANEL BOARD, C	OMPLETE (	EC77: E3	)
R815	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R816	1-216-821-11	METAL CHIP	1K	5%	1/10W			PANEL BOARD, C			
								PANEL BOARD, C			
R817	1-216-841-11		47K	5%	1/10W			PANEL BOARD, C			
R818	1-216-833-11	METAL CHIP	10K	5%	1/10W			PANEL BOARD, C			
R819	1-216-839-11	METAL CHIP	33K	5%	1/10W		A-1218-723-A	PANEL BOARD, C	OMPLETE (	EC55: AE	P, UK)
R820	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R821	1-216-829-11	METAL CHIP	4.7K	5%	1/10W			PANEL BOARD, C			
								PANEL BOARD, C			
R822	1-216-809-11		100	5%	1/10W			PANEL BOARD, C	,		,
R823	1-216-833-11		10K	5%	1/10W		A-1218-831-A	PANEL BOARD, C	,	EC55: MX	<b>(</b> )
R824	1-216-817-11		470	5%	1/10W			*********	******		
R825	1-216-829-11		4.7K	5%	1/10W						
R826	1-216-821-11	METAL CHIP	1K	5%	1/10W			HOLDER (LCD)			
								PLATE, LIGHT GL	JIDE		
R827	1-216-845-11		100K	5%	1/10W		2-649-179-01				
R829	1-216-829-11		4.7K	5%	1/10W		2-665-175-01	SHEET (REFLECT	OR)		
R830	1-216-827-11		3.3K	5%	1/10W						
R831	1-216-825-11		2.2K	5%	1/10W			< CAPACITOR >			
R832	1-216-857-11	METAL CHIP	1M	5%	1/10W						
Doca	1 010 00= ::	MACTAL OLUC	0.017	0.50/	4/4014	C301	1-164-156-11		0.1uF	000/	25V
R836	1-218-867-11		6.8K	0.5%	1/10W	C302	1-126-964-11		10uF	20%	50V
R837	1-216-845-11		100K	5%	1/10W	C303	1-126-964-11		10uF	20%	50V
R838	1-216-837-11		22K	5%	1/10W	C304	1-164-156-11		0.1uF	000/	25V
R839	1-216-797-11		10	5%	1/10W	C305	1-126-964-11	ELECT	10uF	20%	50V
R840	1-216-864-11	SHORT CHIP	0			0000	1 101 055 01	EL FOT	470 5	000/	0.017
D044	4 040 000 44	METAL OLUB	4014	<b>5</b> 0/	4 (4 0) 14	C306	1-104-655-91		470uF	20%	6.3V
R841	1-216-833-11		10K	5%	1/10W	C307	1-104-655-91		470uF	20%	6.3V
R842	1-216-864-11		0	<b>5</b> 0/	4 (4 0) 14	C308	1-100-566-91		0.1uF	10%	25V
R843	1-216-845-11		100K	5%	1/10W	C309	1-126-965-91	ELECT	22uF	20%	50V
R844	1-216-825-11		2.2K	5%	1/10W	C310	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R846	1-216-797-11	WE TAL CHIP	10	5%	1/10W	0011	1 104 150 11	OEDAMIO OLUB	0.1		05)/
D047	1 016 004 11	CHODE CHID	0			C311	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R847	1-216-864-11		0	F0/	1/10/4	C312	1-164-156-11		0.1uF	100/	25V
R848	1-216-809-11		100	5%	1/10W	C313	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
R849	1-216-813-11		220	5%	1/10W	C317		CERAMIC CHIP	0.001uF	10%	50V
R850	1-216-809-11		100	5%	1/10W	C319	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R851	1-216-801-11	WE IAL CHIP	22	5%	1/10W	0000	4 400 040 44	OEDAMIO OLUB	0005	F0/	F0\/
DOCO	1 010 005 11	METAL OLUB	0.01/	E0/	1/10/4/	C320		CERAMIC CHIP	22PF	5%	50V
R852	1-216-825-11		2.2K	5% 5%	1/10W	C321		CERAMIC CHIP	0.1uF		25V
R853	1-216-819-11	WETAL CHIP	680	5%	1/10W	C330	1-104-156-11	CERAMIC CHIP	0.1uF		25V
						ı					

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
C332	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	Q306	1-801-806-11	TRANSISTOR	DTC144E	KA	
C340	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	Q307	8-729-600-22	TRANSISTOR	2SA1235	-F	
						Q308	1-801-806-11	TRANSISTOR	DTC144E	KA	
C341	1-164-156-11	CERAMIC CHIP	0.1uF		25V	Q309	8-729-040-76	TRANSISTOR	KTA1273	-Y-AT	
C342	1-164-156-11	CERAMIC CHIP	0.1uF		25V	Q310	8-729-120-28	TRANSISTOR	2SC1623	-L5L6	
C343	1-126-965-91	ELECT	22uF	20%	50V						
						Q311	8-729-024-43	TRANSISTOR	2SA1365	-T112-1EI	F
		< CONNECTOR >				Q312	8-729-024-43	TRANSISTOR	2SA1365	-T112-1EI	F
						Q313	8-729-024-43		2SA1365	-T112-1EI	F
CN301	1-779-564-21	CONNECTOR, FFC		-ZIF)) 27I	Р	Q314	8-729-024-43		2SA1365		F
CN302	1-784-735-11	CONNECTOR, FFC	C 13P			Q315	8-729-047-62	TRANSISTOR	2SC3440	-T12-1F	
		< DIODE >				Q316	8-729-047-62		2SC3440		
D004	0.504.700.04	DIODE 14470040	20141.00			Q317	8-729-047-62		2SC3440		
D301	6-501-722-01					Q318	8-729-047-62	TRANSISTUR	2SC3440	-112-11	
D302	8-719-404-50		X					DECICTOR			
D303	8-719-000-07		-v					< RESISTOR >			
D304 D305	8-719-404-50 8-719-404-50	DIODE MATTI-T				R301	1-216-809-11	METAL CHID	100	5%	1/10W
D305	6-719-404-50	DIODE MATTI-I	٨			R301	1-216-809-11		100 100	5% 5%	1/10W 1/10W
		< IC >				R303	1-216-809-11		100	5%	1/10W
		< 10 >				R304	1-216-809-11		100	5%	1/10W
IC301	6-807-577-01	IC MB90803PF-0	G-130F1			R305	1-216-809-11		100	5%	1/10W
IC302		IC NJL24H400A				11000	1 210 003 11	WIETAL OTT	100	<b>J</b> /0	1/1044
10002	0 000 040 01	10 1102241140071				R306	1-216-809-11	METAL CHIP	100	5%	1/10W
		< JUMPER RESIS	STOR >			R307	1-216-809-11		100	5%	1/10W
		1001111 211112010				R308	1-216-809-11		100	5%	1/10W
JR301	1-216-864-11	SHORT CHIP	0			R309	1-216-809-11		100	5%	1/10W
JR302	1-216-296-11		0			R310	1-216-809-11		100	5%	1/10W
JR303	1-216-296-11	SHORT CHIP	0								
JR304	1-216-296-11	SHORT CHIP	0			R311	1-216-809-11	METAL CHIP	100	5%	1/10W
JR305	1-216-296-11	SHORT CHIP	0			R312	1-216-809-11	METAL CHIP	100	5%	1/10W
						R313	1-216-809-11	METAL CHIP	100	5%	1/10W
JR306	1-216-864-11	SHORT CHIP	0			R314	1-216-809-11	METAL CHIP	100	5%	1/10W
JR307	1-216-296-11		0			R315	1-216-809-11	METAL CHIP	100	5%	1/10W
JR308	1-216-296-11		0								
JR309	1-216-296-11		0			R316	1-216-809-11		100	5%	1/10W
JR310	1-216-864-11	SHORT CHIP	0			R317	1-216-809-11		100	5%	1/10W
IDO44	1 010 001 11	OLIODE OLUD	•			R318	1-216-809-11		100	5%	1/10W
JR311	1-216-864-11		0			R319	1-216-809-11		100	5%	1/10W
JR312	1-216-296-11	SHORT CHIP	0			R320	1-216-809-11	METAL CHIP	100	5%	1/10W
JR313 JR314	1-216-864-11	SHORT CHIP SHORT CHIP	0			D201	1-216-809-11	METAL CLID	100	5%	1/10W
JR314 JR315	1-216-296-11 1-216-296-11		0			R321 R322	1-216-809-11		100	5% 5%	1/10W 1/10W
011010	1-210-230-11	SHORT GIIII	U			R323	1-216-809-11		100	5%	1/10W
JR316	1-216-296-11	SHORT CHIP	0			R324	1-216-809-11		100	5%	1/10W
JR317	1-216-296-11		0			R325	1-216-797-11		10	5%	1/10W
JR318	1-216-296-11		0								
JR319	1-216-864-11		0			R326	1-216-809-11	METAL CHIP	100	5%	1/10W
JR320	1-216-296-11		0			R327	1-216-809-11	METAL CHIP	100	5%	1/10W
						R328	1-216-833-11	METAL CHIP	10K	5%	1/10W
JR321	1-216-296-11	SHORT CHIP	0			R329	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
						R330	1-216-819-11	METAL CHIP	680	5%	1/10W
		< LIQUID CRYSTA	AL DISPLAY	>							
						R331	1-216-845-11		100K	5%	1/10W
LCD301	1-805-973-11	DISPLAY PANEL,	LIQUID CRY	YSTAL		R332	1-216-833-11		10K	5%	1/10W
		. = 0				R333	1-216-845-11		100K	5%	1/10W
		< LED >				R334	1-216-833-11		10K	5%	1/10W
FD204	6 501 470 01	DIODE 11.00.41V	005004600	(DACK 1	ICUT)	R335	1-216-833-11	WETAL CHIP	10K	5%	1/10W
LEDSUI	0-301-479-01	DIODE 1L0341Y	23EUUA0U2	(DAUK L	.iuП1)	Dage	1-216-833-11	WETVI CHID	10K	5%	1/10W
		< TRANSISTOR >				R336 R337	1-216-864-11		0	J /0	1/1000
		< ITANUOUTUR >				R338	1-216-789-11		2.2	5%	1/10W
Q301	8-729-120-28	TRANSISTOR	2SC1623-	1516		R339	1-216-789-11	METAL CHIP	2.2	5%	1/10W
Q302	8-729-037-13		KTA1271Y			R340	1-216-829-11		4.7K	5%	1/10W
Q303	8-729-120-28		2SC1623-				. 2.0 020 71			J , 0	.,
Q304	8-729-120-28		2SC1623-			R341	1-216-839-11	METAL CHIP	33K	5%	1/10W
Q305	8-729-120-28		2SC1623-			R342	1-216-849-11		220K	5%	1/10W
						R343	1-216-853-11		470K	5%	1/10W

Ver. 1.2
PANEL PT

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
R344	1-216-826-11	METAL CHIP	2.7K	5%	1/10W						
R345	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R392	1-216-833-11	METAL CHIP	10K	5%	1/10W
R346	1-216-841-11	METAL CLUD	47K	5%	1/10W	R393	1-216-821-11	METAL CLUD	1K	(EXCEP	T AEP, UK) 1/10W
						กงขึ้ง	1-210-021-11	WIL TAL OTTE	IK		
R347	1-216-817-11	METAL CHIP	470	5%	1/10W					,	P, UK, RU)
R348	1-216-841-11	METAL CHIP	47K	5%	1/10W	R393	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R349	1-216-817-11	METAL CHIP	470	5%	1/10W						(MX)
R350	1-216-841-11	METAL CHIP	47K	5%	1/10W	R393	1-216-833-11	METAL CHIP	10K	5%	1/10W
11000	1-210-041-11	WILIAL OITH	4710	J /0	1/1000	11030	1-210-033-11	WILIAL OITH	TOIX	J /0	(E3)
R351	1-216-817-11	METAL CHIP	470	5%	1/10W	R393	1-216-840-11	METAL CHIP	39K	5%	1/10W
R352	1-216-841-11	METAL CHIP	47K	5%	1/10W						(E2)
R353	1-216-817-11		470	5%	1/10W						(LL)
						D000	1 010 015 11	METAL OLUB	1001	<b>5</b> 0/	4 (4 0) 14
R354	1-216-841-11		47K	5%	1/10W	R393	1-216-845-11	METAL CHIP	100K	5%	1/10W
R355	1-216-817-11	METAL CHIP	470	5%	1/10W						(E51)
						R396	1-216-864-11	SHORT CHIP	0		
R356	1-216-817-11	METAL CHIP	470	5%	1/10W	R397	1-216-817-11	METAL CHIP	470	5%	1/10W
						1					
R357	1-216-841-11		47K	5%	1/10W	R399	1-216-833-11	METAL CHIP	10K	5%	1/10W
R358	1-216-841-11	METAL CHIP	47K	5%	1/10W	R400	1-216-864-11	SHORT CHIP	0		
R359	1-216-817-11	METAL CHIP	470	5%	1/10W						
R360	1-216-817-11		470	5%	1/10W	R401	1-216-864-11	SHORT CHIP	0		
11000	1 210 017 11	WILIAL OITH	470	<b>J</b> /0	1/1000	1				E0/	4/40/4/
						R402	1-216-845-11	METAL CHIP	100K	5%	1/10W
R361	1-216-841-11	METAL CHIP	47K	5%	1/10W	R405	1-216-821-11	METAL CHIP	1K	5%	1/10W
R362	1-216-837-11	METAL CHIP	22K	5%	1/10W	R406	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R363	1-216-837-11	METAL CHIP	22K	5%	1/10W	R412	1-216-821-11	METAL CHIP	1K	5%	1/10W
						11712	1 210 021 11	WILIAL OITH	110	<b>J</b> /0	17 10 00
R364	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R365	1-216-837-11	METAL CHIP	22K	5%	1/10W	R413	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
						R419	1-216-837-11	METAL CHIP	22K	5%	1/10W
R366	1-216-837-11	METAL CHIP	22K	5%	1/10W	R420	1-216-845-11	METAL CHIP	100K	5%	1/10W
						1					
R367	1-216-837-11		22K	5%	1/10W	R421	1-216-833-11	METAL CHIP	10K	5%	1/10W
R368	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R369	1-216-821-11	METAL CHIP	1K	5%	1/10W			< SWITCH >			
R370	1-216-821-11		1K	5%	1/10W						
11070	1 210 021 11	WEIAL OIII	IIX	<b>J</b> /0	1/1044	0201	1 706 417 11	ENCODED DOTA	DV (VOLUM	<b>4</b> E\	
						S301	1-786-417-11	ENCODER, ROTA	KY (VULUI	/IE)	
R371	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R372	1-216-821-11	METAL CHIP	1K	5%	1/10W			< SWITCH >			
R373	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R374	1-216-821-11	METAL CHIP	1K	5%	1/10W	SW303	1-762-875-21	SWITCH, KEYBO	ARD (FIINC	TION)	
R375	1-216-821-11	METAL CHIP	1K	5%	1/10W	SW304	1-762-875-21	SWITCH, KEYBO			
						SW305	1-762-875-21	SWITCH, KEYBO	ard (Tune	R/BAND)	
R376	1-216-837-11	METAL CHIP	22K	5%	1/10W	SW311	1-762-875-21	SWITCH, KEYBO	ARD (■)		
R377	1-216-837-11	METAL CHIP	22K	5%	1/10W	SW312	1-762-875-21	SWITCH, KEYBO	ARD (TLÍNII	NG – IKK	<b>144</b> )
					1/10W	0,,012	1 702 070 21	OWITOII, ILLIBO	ALLE (TOM	110 114	)
R378	1-216-841-11	METAL CHIP	47K	5%		0111010					
R379	1-216-845-11	METAL CHIP	100K	5%	1/10W	SW313	1-762-875-21	SWITCH, KEYBO	ARD (TUNII	NG + ►►	<b>⊳⊳</b> I)
R380	1-216-817-11	METAL CHIP	470	5%	1/10W						
								< VIBRATOR >			
R381	1-216-833-11	METAL CHIP	10K	5%	1/10W						
						Vood	4 700 050 40	VIDDATOD ODVO	OTAL (00.70	OLU-\	
R382	1-216-833-11		10K	5%	1/10W	X301		VIBRATOR, CRYS	•	,	
R383	1-216-833-11	METAL CHIP	10K	5%	1/10W	X302	1-795-058-21	VIBRATOR, CERA	AMIC (5MH:	z)	
R384	1-216-833-11	METAL CHIP	10K	5%	1/10W	*******	******	******	******	*****	******
R385	1-216-821-11		1K	5%	1/10W						
11000	1-210-021-11	WIL TAL OTTI	IIX	J /0	1/1044			DT DOADD (EVO	DT F0FF. I	IC OND)	
								PT BOARD (EXC	EPT EU00: U	JS, UND)	
R386	1-216-821-11	METAL CHIP	1K	5%	1/10W			*****			
R387	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R388	1-216-864-11		0 (US, CN					< CAPACITOR >			
			,	,	4 (4 0) 4 (			COMPACTION >			
R389	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
			(EC77	7: EXCEP	T US, CND)	C051	1-165-621-91	CERAMIC CHIP	0.1uF		50V
R389	1-216-833-11	METAL CHIP	10K	5%	1/10W						
					CND/GX99)			< CONNECTOR >			
			(LC	<i>711</i> . 00, 0	JIND/GAJJ)			< OUNIVLOTOTE >			
R389	1-216-837-11	METAL CHIP	22K	5%	1/10W	CN051	1-819-972-11	HOLDER, CABLE	8P		
				(EC55: E	XCEPT US)						
R390	1-216-821-11	METAL CHIP	1K	5%	1/10W			< DIODE >			
11030	1 210-021-11	WILLIAL UTIL						< DIODE >			
					: US, CND)						
R390	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	D051	6-500-334-01	DIODE MC2836	-T112-1		
					(GX99)	D052	6-500-335-01	DIODE MC2838	-T112-1		
R390	1-216-841-11	METAL CHIP	47K	5%	1/10W	D055	6-500-335-01	DIODE MC2838			
11000	1 210 041-11	MILIAL VIIII				5000	0 000 000-01	PIODE MOZOSO	1114-1		
Bac -					T US, CND)						
R390	1-216-845-11	METAL CHIP	100K	5%	1/10W						
				(EC55: E	XCEPT US)	1					
					,						

Ver. 1.2
PT PT (U) REG

Ref. No.	Part No.	<u>Description</u> Rema	ark Ref. N	o. Part No.	<u>Description</u>	<u>Remark</u>
		< TRANSFORMER >	108		-81 CORD, POWER (AUS)	
<b> ⚠</b> PT001	1_///3_8//6_11	TRANSFORMER, POWER	<u></u> 108 <u></u> 108		-52 CORD, POWER (US, CND) -11 CORD, POWER (AEP, RU, E2	) F3 F51)
2111001	1-440-040-11	(EC77: US, CND/G)	I	1-001-070	-TT GOND, TOWEN (ALT, NO, LZ	., LO, LOT)
<b>⚠ PT001</b>		TRANSFORMER, POWER (AEP, UK, RU)	108 △ 108		-11 CORD, POWER (MX)	
⚠ PT001	1-445-105-11	TRANSFORMER, POWER (E2, E3, E51, MX)	<u></u>		-11 CORD, POWER (AR) -21 CABLE, FLEXIBLE FLAT (13)	CODE)
		< RELAY >	153		-21 CABLE, FLEXIBLE FLAT (21)	
			157		-11 CORE, FERRITE	,
⚠ RY001		RELAY, AC POWER C55: AEP, UK, RU/EC77: US, CND, AEP, RU/G)	(99) <u>A</u> 158	1_760_070	-51 CORD. POWER (KR)	
<b> ≜</b> RY002		RELAY (E2, E3, E51, MX)	.99)		-81 CORD, POWER (AUS)	
		, , , ,	158	1-790-757	-52 CORD, POWER (US, CND)	
		< SWITCH >	<u></u>		-11    CORD, POWER (UK) -11    CORD, POWER (AEP, RU, E2	) EE1 CD)
<b></b> \$001	1-786-408-11	SELECTOR, VOLTAGE (SWS-2301)	2130	1-031-37	-TT GOND, FOWEN (ALF, NO, LZ	., LJ1, JF)
		(VOLTAGE SELECTOR)(E2, E3, E	, I		-11 CORD, POWER (MX)	
******	**********	***************	***		-11 CORD, POWER (AR) -11 DECK, MECHANICAL (EXCEI	OT LIC CNID)
		PT (U) BOARD (EC55: US, CND)	214		-11 DECK, MECHANICAL (EXCER -21 CABLE, FLEXIBLE FLAT (9 C	
		*******			,	(EXCEPT US,CND)
		CADACITOD	1 1 505	A-4735-3	7-A BASE ASSY, OP (KSM-213)	
		< CAPACITOR >	506	1-832-404	-21 CABLE, FLEXIBLE FLAT (16	CORE)
C051	1-165-621-91	CERAMIC CHIP 0.1uF 50V	507		-12 MECHANICAL, CD (DLM3A2	
		CONNECTOR		02 1-445-113	-11 TRANSFORMER, POWER	277. HC OND/OVOO)
		< CONNECTOR >		02 1-445-118	et) 11 TRANSFORMER, POWER (E-	C77: US, CND/GX99) C77: AFP RU)
CN051	1-819-972-11	HOLDER, CABLE 8P	TP0		-11 TRANSFORMER, POWER	,
		DIODE			(EC77: E2	2, E3, E51, AR, AUS)
		< DIODE >		02 1-445-120	-11 TRANSFORMER, POWER (E	C77· MX)
D051	6-500-334-01	DIODE MC2836-T112-1	TPC		-11 TRANSFORMER, POWER	<b>3.11.11.1</b> ,
D052		DIODE MC2838-T112-1	A TD0	00 1 440 00		61, KR, AR, SP, AUS)
D055	0-300-333-01	DIODE MC2838-T112-1			-11 TRANSFORMER, POWER (E -11 TRANSFORMER, POWER (E	,
		< TRANSFORMER >	<b>△</b> TPC		-11 TRANSFORMER, POWER (E	. ,
<b> ⚠</b> PT001	1_///3_8//6_11	TRANSFORMER, POWER	S20	1 1_771_85	-11 SWITCH, DETECTION (LIMI	Γ\
<u> </u>	1 440 040 11	THE WOOL OF WHITE, I OWER	020	1 1771 000	TT OWITOII, BETEOTION (EINIT	• /
		< RELAY >				
<b> ∆</b> RY001	1-755-334-11	RELAY, AC POWER				
******	******	************	***			
		REG BOARD				
		******				
		0.0.0.00				
		< CAPACITOR >				
C629	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V				
		< IC >				
		<10 >				
IC601		IC NJM78M09FA				
*****	**********	*****************	***			
		MISCELLANEOUS				
		********				
6	1-787-319-12	FAN, DC				
	4 707 644 11	(EC55/EC77: AEP, RU, E2, E3, E51, MX, AR, A	US)			
6 59		FAN, DC (EC77: US, CND/GX99) CABLE, FLEXIBLE FLAT (27 CORE)				
64		CABLE, FLEXIBLE FLAT (9 CORE)				
101		CABLE, FLEXIBLE FLAT (13 CORÉ)				
103	1-834-181-21	CABLE, FLEXIBLE FLAT (21 CORE)				
107		CORE, FERRITE				

# <u>MEMO</u>

SONY

# SERVICE MANUAL

Ver. 1.2 2007.07

US Model Canadian Model HCD-FC55/FC77/GX99

> AEP Model HCD-EC55/EC77

> > UK Model HCD-EC55

E Model HCD-EC55/EC77

Australian Model HCD-EC55/EC77

Before change: 1-872-061-12

1-872-061-14

After change: 1-872-061-13

# **SUPPLEMENT-1**

Subject: Board changed to suffix -13, -14 from suffix -12.

Parts number of printed wiring board changed to suffix-13, -14 from suffix-12. It has any difference between suffix-12 and suffix-13, -14. This supplement-1 describes printed wiring boards, schematic diagrams and electrical parts list about printed wiring boards suffix-13, -14.

Refer to original service manual (9-887-532-0]) for other information.

After change: 1-872-057-13

1-872-057-14

#### . How to distinguish

Location of parts number on changed wiring board [ HI-AMP BOARD ] ( MAIN BOARD ) 【 PANEL BOARD】 (COMPONENT SIDE) (COMPONENT SIDE) (COMPONENT SIDE) Before change: 1-872-062-12 Before change: 1-872-055-12 After change: 1-872-062-13 After change: 1-872-055-13 1-872-062-14 1-872-055-14 Before change: 1-872-059-12 [LOW-AMP BOARD] After change: 1-872-059-13 (COMPONENT SIDE) 1-872-059-14 Before change: 1-872-064-12 After change: 1-872-064-13 1-872-064-14 【 REG BOARD 】 **[KEY-LEFT BOARD]** (COMPONENT SIDE) (COMPONENT SIDE) 【KEY-CD BOARD】 【 DECK BOARD 】 Before change: 1-872-060-12 After change: 1-872-060-13 (COMPONENT SIDE) (COMPONENT SIDE) 1-872-060-14 Before change: 1-872-056-12 [PT BOARD] 7///// After change: 1-872-056-13 (COMPONENT SIDE) 【KEY-RIGHT BOARD】 Before change: 1-872-058-12 (COMPONENT SIDE) After change: 1-872-058-13 Before change: 1-872-065-12 1-872-058-14 After change: 1-872-065-13 【JACK BOARD】 1-872-065-14 (COMPONENT SIDE) Before change: 1-872-057-12

9-887-532-81

Before change: 1-872-063-12

1-872-063-14

After change: 1-872-063-13

#### **DIAGRAMS**

# THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS. (In addition to this, the necessary note is printed in each block.)

#### Note on Schematic Diagram:

- All capacitors are in  $\mu F$  unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums
- All resistors are in  $\Omega$  and  $^{1}\!/_{\!4}\,W$  or less unless otherwise specified.
- Δ : internal component.
- - : nonflammable resistor.
- fusible resistor.
- \_\_\_\_\_: panel designation.

#### Note:

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

#### Note:

Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- adjustment for repair.
- : B+ Line.
- Voltages are taken with a VOM (Input impedance 10 MΩ).
   Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
   Voltage variations may be noted due to normal production

Voltage variations may be noted due to normal production tolerances.

- HI-AMP/LOW-AMP Section -

No mark: CD STOP

DECK Section –No mark: TAPE PLAY or TAPE REC

- Other Section -

No mark: CD PLAY

- Circled numbers refer to waveforms.
- Signal path.

: TUNER (FM) : TUNER (AM)

: TUNER (AW : CD : AUDIO

∴ PB (TAPE)
∴ REC (TAPE)

Abbreviation

AR : Argentine model AUS : Australian model CND : Canadian model

E2 : 120 V AC area in E model E3 : 240 V AC area in E model E51 : Chilean and Peruvian models

KR : Korean model
MX : Mexican model
RU : Russian model
SP : Singapore model

#### **Note on Printed Wiring Boards:**

· · · : parts extracted from the component side.

• —— : parts extracted from the conductor side.

Δ : internal component.

• Pattern from the side which enables seeing.

#### Caution:

Pattern face side: Parts on the pattern face side seen from (Side B) the pattern face are indicated.

Parts face side: Parts on the parts face side seen from

(Side A) the parts face are indicated.

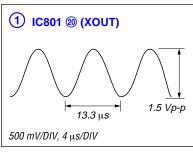
· Indication of transistor.



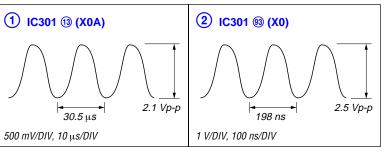


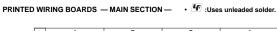
#### Waveforms

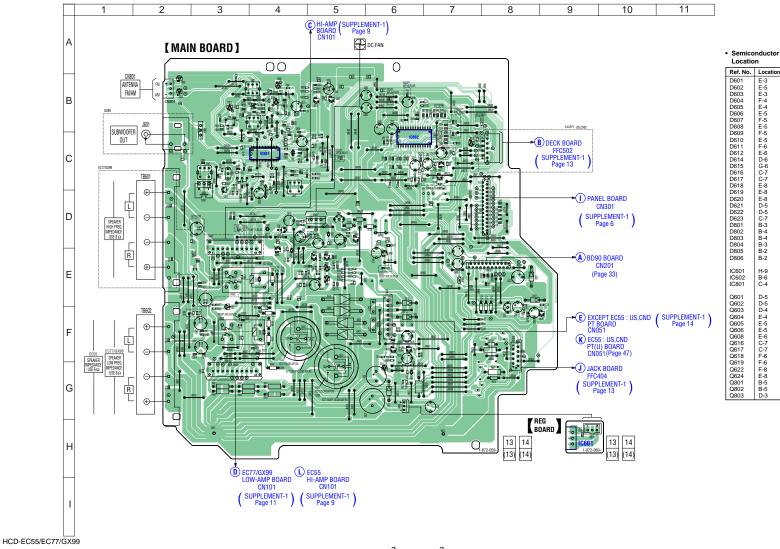
#### - MAIN Board -

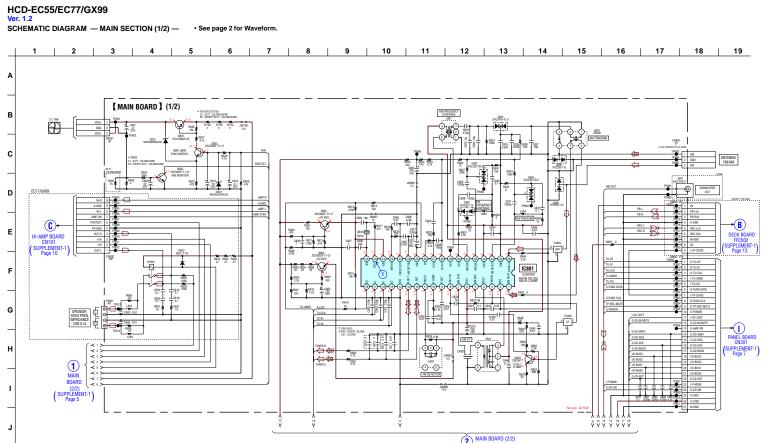


#### - PANEL Board -

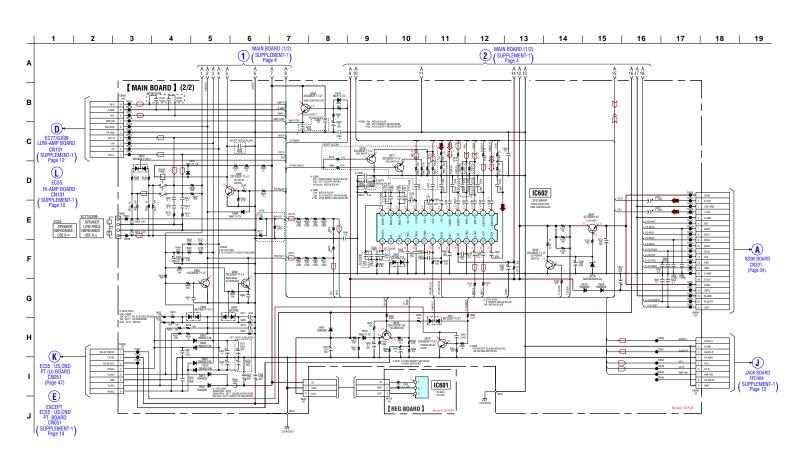






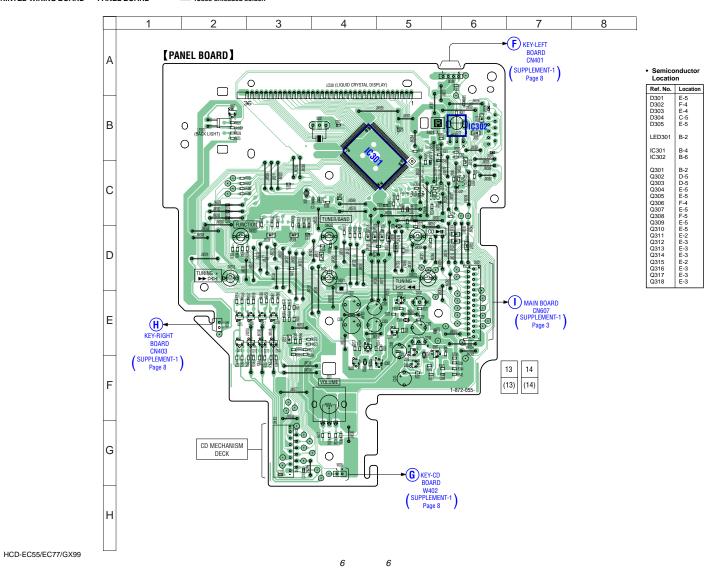


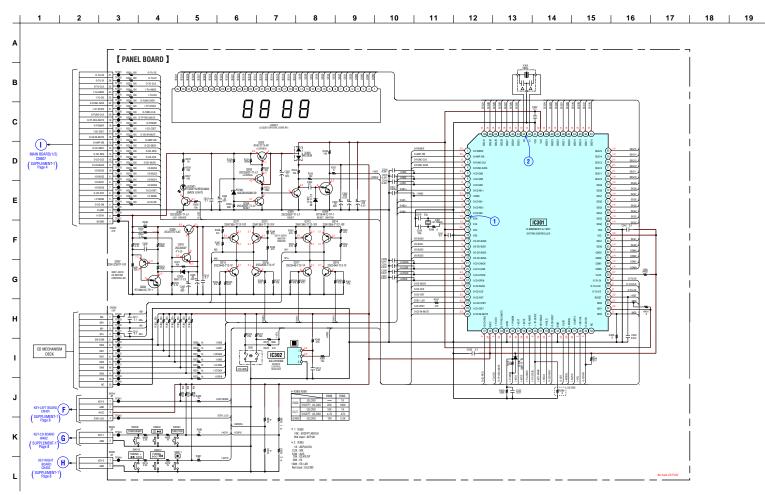
 $Downloaded \ from \ \underline{www.Manualslib.com} \ \ manuals \ search \ engine$ 



HCD-EC55/EC77/GX99 5 5

Ver. 1.2
PRINTED WIRING BOARD — PANEL BOARD — • **!** :Uses unleaded solder.





В

С

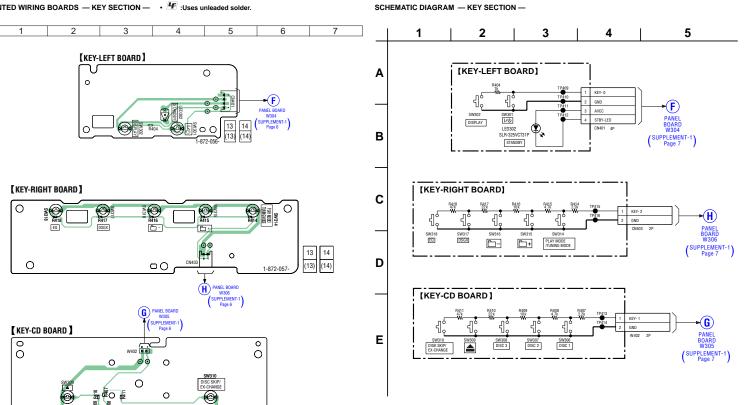
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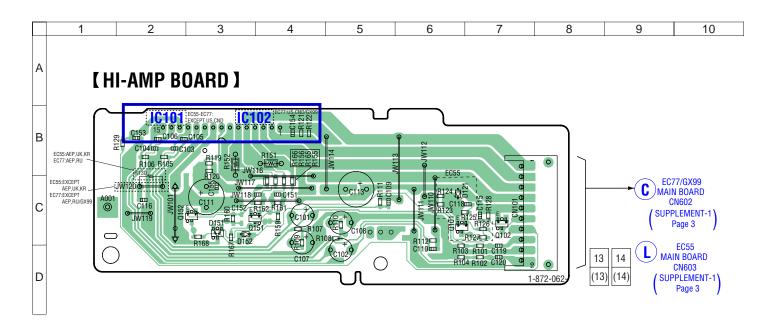
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Ver. 1.2
PRINTED WIRING BOARDS — KEY SECTION — • \*\* :Uses unleaded solder.



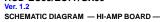
HCD-EC55/EC77/GX99

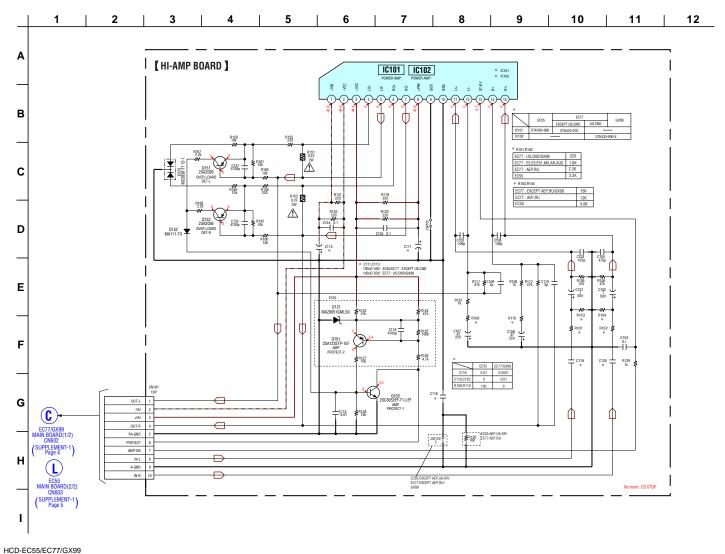


#### Semiconductor Location

	••
Ref. No.	Location
D121	C-6
D151	D-3
D152	C-3
IC101	B-2
IC102	B-3
Q101	C-6
Q102	C-7
Q151	C-3
Q152	C-2

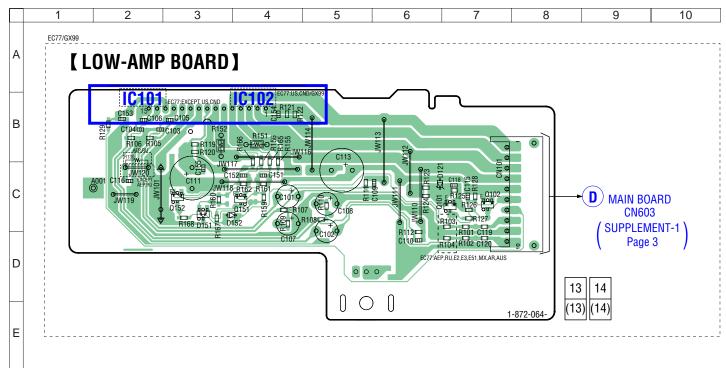
HCD-EC55/EC77/GX99 9 9





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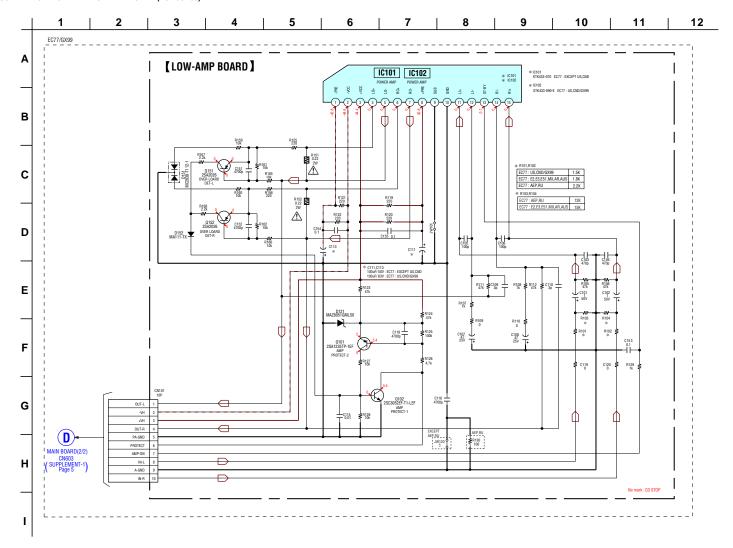


#### Semiconductor Leastion

Ref. No.	Location
D151	C-3
D152	C-3
IC101	B-2
IC102	B-4
Q101	C-6
Q102	C-7
Q151	C-4
Q152	C-3

HCD-EC55/EC77/GX99 11 11

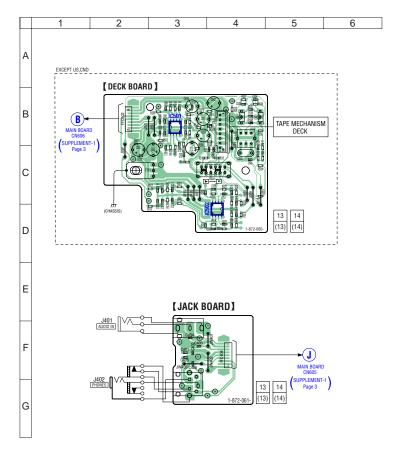
HCD-EC55/EC77/GX99 Ver. 1.2 SCHEMATIC DIAGRAM — LOW-AMP BOARD (EC77/GX99) —

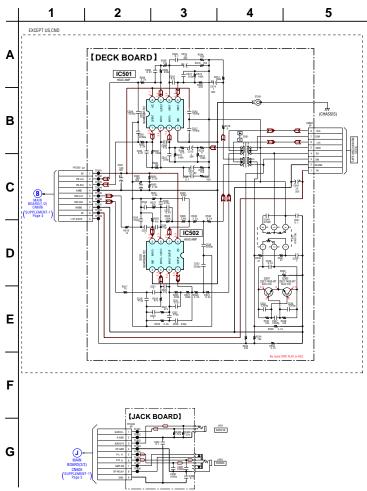


HCD-EC55/EC77/GX99

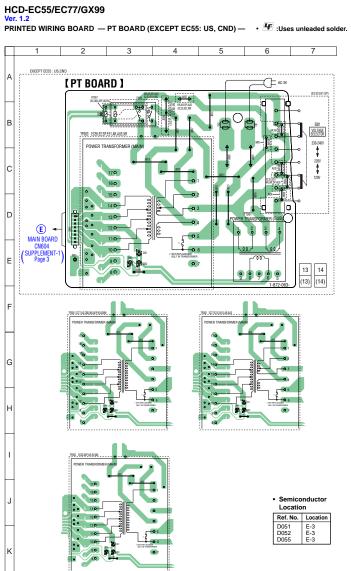
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12

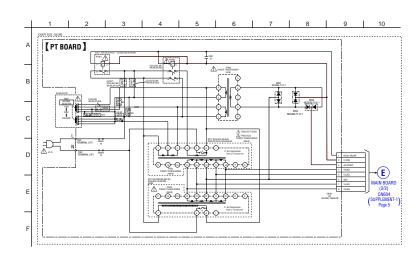




HCD-EC55/EC77/GX99 13 13



 ${\tt SCHEMATIC \ DIAGRAM -- PT \ BOARD \ (EXCEPT \ EC55: \ US, \ CND) --}$ 



14

### **ELECTRICAL PARTS LIST**

Ver. 1.2 DECK

#### NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- CAPACITORS
- uF: µF
  COILS
  uH: µH

- Items marked "\*" are not stocked since they are seldom required for routine service.
   Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS

In each case, u:  $\mu$ , for example:

 $\begin{array}{lll} uA. & : \mu A. & & uPA. & \vdots \, \mu PA. \, . \\ uPB. & : \mu PB. & & uPC. & : \, \mu PC. \, . \end{array}$ 

uPD. . : µPD. . Abbreviation

AR : Argentine model AUS : Australian model CND : Canadian model

E2 : 120V AC area in E model E3 : 240V AC area in E model E51 : Chilean and Peruvian model When indicating parts by reference number, please include the board name.

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

KR : Korean model
MX : Mexican model
RU : Russian model
SP : Singapore model

								or . omgo	ipore mode.		
Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	Description			<u>Remark</u>
	A-1218-569-A	DECK BOARD, CO	MPI FTF			C541	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
	7. 12.0 000 7.	220112071112,00		: EXCEP	T US,CND)	C542	1-104-662-91		22uF	20%	25V
	A-1218-730-A	DECK BOARD, CO			, ,	C543		CERAMIC CHIP	0.001uF	10%	50V
		,		: EXCEP	T US,CND)						
		********	*****		, ,	C545	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
						C546	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
		< CAPACITOR >									
								< CONNECTOR >			
C501	1-126-933-11	ELECT	100uF	20%	16V						
C502	1-126-933-11	ELECT	100uF	20%	16V	CN501	1-815-449-11	PIN, CONNECTOR	R (PWB) 8P		
C503		CERAMIC CHIP	0.0022uF		50V						
C504		CERAMIC CHIP	0.0022uF		50V			< TERMINAL >			
C505	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V						
						ET501	1-537-771-21	TERMINAL BOAF	RD, GROUNI	)	
C506		CERAMIC CHIP	0.01uF	10%	25V						
C509		CERAMIC CHIP	47PF	5%	50V			< IC >			
C510		CERAMIC CHIP	47PF	5%	50V						
C511		CERAMIC CHIP	220PF	10%	50V	IC501	8-759-100-96	IC uPC4558G2			
C512	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	IC502	8-759-100-96	IC uPC4558G2			
0540	4 400 000 44	FLEOT	4	000/	F0\/			IIIMADED DEOLO	TOD		
C513	1-126-960-11		1uF	20%	50V			< JUMPER RESIS	TUK >		
C514	1-126-960-11		1uF	20%	50V	IDE04	1 010 004 11	CHODE OHID	0		
C515	1-126-947-11		47uF 47uF	20%	35V	JR501	1-216-864-11		0		
C516	1-126-947-11			20%	35V	JR502	1-216-864-11		0		
C517	1-102-904-11	CERAMIC CHIP	0.001uF	10%	50V	JR503	1-216-864-11 1-216-295-91	SHORT CHIP SHORT CHIP	0		
C519	1 160 060 11	CERAMIC CHIP	470PF	10%	50V	JR504	1-210-290-91	SHUKI CHIP	U		
C520		CERAMIC CHIP	470PF 470PF	10%	50V 50V			< COIL >			
C521		CERAMIC CHIP	1uF	10%	6.3V			< OUIL >			
C522		CERAMIC CHIP	1uF	10%	6.3V	L501	1-456-094-11	TRANSFORMER,	RIAS OSCII	Ι ΔΤΙΩΝ	
C523		CERAMIC CHIP	1uF	10%	6.3V	2301	1 400 004 11	THANGI OTHVIETI,	DIAO OOOII	LATION	
0020	1 120 007 51	OLI II III III O OI III	Tui	1070	0.0 V			< TRANSISTOR >			
C524	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V			\ 111/11/010101011/			
C525		CERAMIC CHIP	47PF	5%	50V	Q501	8-729-119-78	TRANSISTOR	2SC2785-	HFF	
C526		CERAMIC CHIP	47PF	5%	50V	Q502		TRANSISTOR	2SC2785-		
C527		CERAMIC CHIP	470PF	10%	50V						
C528		CERAMIC CHIP	470PF	10%	50V			< RESISTOR >			
C529	1-162-961-11	CERAMIC CHIP	330PF	10%	50V	R501	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
C530	1-162-961-11	CERAMIC CHIP	330PF	10%	50V	R502	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
C531	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	R503	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
C532	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	R504	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
C533	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	R505	1-216-835-11	METAL CHIP	15K	5%	1/10W
C534		CERAMIC CHIP	0.0022uF		50V	R506	1-216-835-11		15K	5%	1/10W
C535		CERAMIC CHIP	0.0022uF		50V	R507	1-216-851-11		330K	5%	1/10W
C536		CERAMIC CHIP	0.0022uF		50V	R508	1-216-851-11		330K	5%	1/10W
C537		CERAMIC CHIP	0.0022uF		50V	R509	1-216-811-11		150	5%	1/10W
C538	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	R510	1-216-811-11	METAL CHIP	150	5%	1/10W
C539		CERAMIC CHIP	1uF		10V	R511	1-216-845-11	METAL CHIP	100K	5%	1/10W
C540	1-137-391-11	MYLAR	0.0047uF	5%	100V						

# HCD-EC55/EC77/GX99 Ver. 1.2 DECK HI-AMP

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
R512	1-216-845-11	METAL CHIP	100K	5%	1/10W	C113	1-128-576-11	ELECT	100uF	20%	63V
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W				(EC	77: US,	CND/GX99)
R514	1-216-845-11	METAL CHIP	100K	5%	1/10W	C115	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R515	1-216-864-11	SHORT CHIP	0								
						C116	1-162-968-11	CERAMIC CHIP	0.0047uF		50V
R516	1-216-864-11		0							,	EC77/GX99)
R517	1-216-821-11	METAL CHIP	1K	5%	1/10W	C116	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R518	1-216-821-11	METAL CHIP	1K	5%	1/10W						(EC55)
R519	1-216-841-11	METAL CHIP	47K	5%	1/10W	C118	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
R520	1-216-841-11	METAL CHIP	47K	5%	1/10W						(EC55)
						C119	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R521	1-216-841-11		47K	5%	1/10W					(	EC77/GX99)
R522	1-216-841-11		47K	5%	1/10W	C119	1-216-864-11	SHORT CHIP	0 (EC55)		
R523	1-216-827-11	METAL CHIP	3.3K	5%	1/10W						
R524	1-216-827-11		3.3K	5%	1/10W	C120	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R525	1-216-851-11	METAL CHIP	330K	5%	1/10W					(	EC77/GX99)
						C120	1-216-864-11		0 (EC55)		
R526	1-216-851-11		330K	5%	1/10W	C151		CERAMIC CHIP	0.0047uF		50V
R527	1-216-851-11	METAL CHIP	330K	5%	1/10W	C152		CERAMIC CHIP	0.0047uF	10%	50V
R528	1-216-851-11		330K	5%	1/10W	C153		CERAMIC CHIP	0.1uF	10%	25V
R529	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C154	1-165-621-91	CERAMIC CHIP	0.1uF		50V
R530	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
						C155	1-165-621-91	CERAMIC CHIP	0.1uF		50V
R531	1-216-832-11	METAL CHIP	8.2K	5%	1/10W						
R532	1-216-832-11	METAL CHIP	8.2K	5%	1/10W			< CONNECTOR >			
R533	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R534	1-216-835-11	METAL CHIP	15K	5%	1/10W	* CN101	1-569-505-11	PIN, CONNECTO	R 10P		
R535	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
								< DIODE >			
R536	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R537	1-216-833-11	METAL CHIP	10K	5%	1/10W	D121	6-501-730-01	DIODE MAZ805	1GMLS0 (E	C55)	
R538	1-216-833-11	METAL CHIP	10K	5%	1/10W	D151	6-500-335-01	DIODE MC2838	-T112-1		
R539	1-216-793-11	METAL CHIP	4.7	5%	1/10W	D152	8-719-404-50	DIODE MA111-	ΤX		
R540	1-216-805-11	METAL CHIP	47	5%	1/10W						
								10			
								< IC >			
R541	1-216-805-11	METAL CHIP	47	5%	1/10W			< 16 >			
R541 R543	1-216-805-11 1-216-809-11	METAL CHIP METAL CHIP	47 100	5% 5%	1/10W 1/10W	IC101	6-705-620-01	< IU > IC STK433-060	(EC55)		
						IC101 IC101				EPT US	,CND)
R543	1-216-809-11	METAL CHIP	100	5%	1/10W		6-705-621-01	IC STK433-060	(EC77: EXC		
R543 R544	1-216-809-11 1-216-809-11	METAL CHIP METAL CHIP	100 100	5% 5%	1/10W 1/10W	IC101	6-705-621-01	IC STK433-060 IC STK433-070	(EC77: EXC		
R543 R544 R545	1-216-809-11 1-216-809-11 1-216-817-11	METAL CHIP METAL CHIP METAL CHIP	100 100 470	5% 5% 5%	1/10W 1/10W 1/10W	IC101	6-705-621-01	IC STK433-060 IC STK433-070	(EC77: EXC) -E (EC77: US		
R543 R544 R545	1-216-809-11 1-216-809-11 1-216-817-11	METAL CHIP METAL CHIP METAL CHIP	100 100 470	5% 5% 5%	1/10W 1/10W 1/10W	IC101	6-705-621-01	IC STK433-060 IC STK433-070 IC STK433-090-	(EC77: EXC) -E (EC77: US		
R543 R544 R545	1-216-809-11 1-216-809-11 1-216-817-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP	100 100 470	5% 5% 5%	1/10W 1/10W 1/10W	IC101	6-705-621-01 6-600-580-01	IC STK433-060 IC STK433-070 IC STK433-090-	(EC77: EXC) -E (EC77: US	S, CND/	GX99)
R543 R544 R545 R546	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP < SWITCH > SWITCH, SLIDE	100 100 470 470 470 (REC/PB SW	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	IC101 IC102 Q101 Q102	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07	IC STK433-060 IC STK433-070 IC STK433-0904  < TRANSISTOR TRANSISTOR TRANSISTOR	2SA1235- 2SC3052E	s, CND/ F (EC55	GX99)
R543 R544 R545 R546	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP < SWITCH >	100 100 470 470 470 (REC/PB SW	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	IC101 IC102	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07	IC STK433-060 IC STK433-070 IC STK433-0904  < TRANSISTOR >	(EC77: EXC) -E (EC77: US - 2SA1235-	s, CND/ F (EC55	GX99)
R543 R544 R545 R546	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP < SWITCH > SWITCH, SLIDE	100 100 470 470 470 (REC/PB SW	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	IC101 IC102 Q101 Q102	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01	IC STK433-060 IC STK433-070 IC STK433-0904  < TRANSISTOR TRANSISTOR TRANSISTOR	2SA1235- 2SC3052E	s, CND/ F (EC55	GX99)
R543 R544 R545 R546	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	Q101 Q101 Q102 Q151	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	2SA1235- 2SA2226	s, CND/ F (EC55	GX99)
R543 R544 R545 R546	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	Q101 Q101 Q102 Q151	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01	IC STK433-060 IC STK433-070 IC STK433-0904  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	2SA1235- 2SA2226	s, CND/ F (EC55	GX99)
R543 R544 R545 R546	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	Q101 Q101 Q102 Q151 Q152	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR  CARRESISTOR  < RESISTOR >	2SA1235- 2SC3052E 2SA2026	F (EC55 F-T1-LI	GX99) 5) EF
R543 R544 R545 R546	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	Q101 Q101 Q102 Q151	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR  CARRESISTOR  < RESISTOR >	2SA1235- 2SC3052E 2SA2026 2SA2026	5, CND/ F (EC55 F-T1-Li	GX99)  6) EF  1/10W
R543 R544 R545 R546 S501 ********	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW *********	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	Q101 Q102 Q102 Q151 Q152 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01	IC STK433-060 IC STK433-070 IC STK433-090-  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR  CRESISTOR  METAL CHIP	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026	5% 77: US,	(6X99) (6) (7) (7) (8) (8) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11	METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	Q101 Q101 Q102 Q151 Q152	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01	IC STK433-060 IC STK433-070 IC STK433-0900  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR  TRANSISTOR  CARROLL  METAL CHIP  METAL CHIP	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026	5% 5% 77: US, 5%	(5) EF 1/10W CND/GX99) 1/10W
R543 R544 R545 R546 S501 ********	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW *********	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	Q101 Q102 Q102 Q151 Q152 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01	IC STK433-060 IC STK433-070 IC STK433-0900  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR  TRANSISTOR  CARROLL  METAL CHIP  METAL CHIP	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026	5% 5% 77: US, 5%	(6X99) (6) (7) (7) (8) (8) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W *******	Q101 Q102 Q102 Q151 Q152 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR  CARROLL  CARROLL  METAL CHIP  METAL CHIP  (E)	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026	5% 5% 77: US, 5%	(5) EF 1/10W CND/GX99) 1/10W
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% V) ***********************************	1/10W 1/10W 1/10W 1/10W ************************************	Q101 Q102 Q102 Q151 Q152 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-824-11 1-216-825-11	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026	5% F (EC55: F-T1-Li 5% 77: US, 5% E51, M	1/10W CND/GX99) 1/10W X, AR, AUS)
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% V) ***********************************	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	Q101 Q102 Q102 Q151 Q152 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-824-11	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 (EC 1.8K C77: E2, E3, 2.2K (EC	5% 77: US, 5% 651, M 556 555/EC7	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% V) ***********************************	1/10W 1/10W 1/10W 1/10W ************************************	Q101 Q101 Q102 Q151 Q152 R101 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-824-11 1-216-825-11	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 (EC 1.8K C77: E2, E3, 2.2K (EC	5% 77: US, 5% 651, M 556 555/EC7	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU)
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE ************************************	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% V) ***********************************	1/10W 1/10W 1/10W 1/10W ************************************	Q101 Q101 Q102 Q151 Q152 R101 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-824-11 1-216-825-11	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR   < RESISTOR >  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 (EC 1.8K C77: E2, E3, 2.2K (EC	5% 77: US, 5% 651, M 556 555/EC7	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE **************  * CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% 5% 20% 20% 5% 5%	1/10W 1/10W 1/10W 1/10W ************************************	Q101 Q101 Q102 Q151 Q152 R101 R101 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-825-11 1-216-813-11	IC STK433-060 IC STK433-070 IC STK433-090:  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR   < RESISTOR >  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 1.8K	5% 77: US, 5% 551, M 555/EC7 5% 77: US, 5%	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W CND/GX99)
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE *************  ************  CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT  CERAMIC CHIP ELECT	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% 00% 20% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	Q101 Q101 Q102 Q151 Q152 R101 R101 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-825-11 1-216-813-11	IC STK433-060 IC STK433-070 IC STK433-090:  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR   < RESISTOR >  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 1.8K	5% 77: US, 5% 551, M 555/EC7 5% 77: US, 5%	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W CND/GX99) 1/10W
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE *************  ************  CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT  CERAMIC CHIP ELECT	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% 5% 20% 20% 5% 5% 5% 5% 20%	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	Q101 Q101 Q102 Q151 Q152 R101 R101 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-825-11 1-216-813-11	IC STK433-060 IC STK433-070 IC STK433-090:  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR   < RESISTOR >  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP  (E)  METAL CHIP  (E)  (E)	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 1.8K	5% 77: US, 5% 551, M 555/EC7 5% 77: US, 5%	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W CND/GX99) 1/10W
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE **************  *************  < CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% 5% 20% 20% 5% 5% 5% 5% 20% 20%	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	R101 R102 R102 R101 R101 R101 R102	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 1-216-813-11 1-216-824-11 1-216-813-11 1-216-824-11	IC STK433-060 IC STK433-070 IC STK433-090:  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR   < RESISTOR >  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP  METAL CHIP  (E)  METAL CHIP  (E)  (E)	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 1.8K C77: E2, E3, 2.2K (EC 1.8K C77: E2, E3,	5% 77: US, 5% 555/EC; 5% E51, M 5% E51, M 5%	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W CND/GX99) 1/10W X, AR, AUS)
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE *************  ************  < CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT ELECT ELECT CERAMIC CHIP CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% 0/) ***********************************	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	R101 R102 R102 R101 R101 R101 R102	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 1-216-813-11 1-216-824-11 1-216-813-11 1-216-824-11	IC STK433-060 IC STK433-070 IC STK433-090:  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR  < RESISTOR >  METAL CHIP  (EI  METAL CHIP  METAL CHIP  (EI  METAL CHIP	2SA1235- 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 1.8K C77: E2, E3, 2.2K (EC 1.8K C77: E2, E3,	5% 77: US, 5% 555/EC; 5% E51, M 5% E51, M 5%	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE *************  ************  < CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT ELECT ELECT CERAMIC CHIP CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% V) ***********************************	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	R101 R102 R102 R102 R102 R102 R101 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-825-11 1-216-824-11 1-216-824-11 1-216-824-11	IC STK433-060 IC STK433-070 IC STK433-090:  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR  < RESISTOR >  METAL CHIP  (EI  METAL CHIP  METAL CHIP  (EI  METAL CHIP	2SA1235- 2SC3052E 2SC3052E 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 1.8K C77: E2, E3, 2.2K (EC 220 (EC 1.8K C77: E2, E3, 2.2K (EC 220 (EC 1.8K	5% 77: US, 5% E51, M 5% C55/EC7 5% E51, M	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 27: AEP, RU) 1/10W X, AR, AUS) 1/10W X, AR, AUS) 1/10W T/7: AEP, RU)
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE *************  ************  < CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT ELECT ELECT CERAMIC CHIP CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% 5% 20% 5% 5% 5% 20% 20% 0.25PF 0.25PF	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	R101 R102 R102 R102 R102 R102 R101 R101	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-825-11 1-216-824-11 1-216-824-11 1-216-824-11	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR  < RESISTOR >  METAL CHIP	2SA1235- 2SC3052E 2SC3052E 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 1.8K C77: E2, E3, 2.2K (EC 220 (EC 1.8K C77: E2, E3, 2.2K (EC 220 (EC 1.8K	5% 77: US, 5% E51, M 5% C55/EC7 5% E51, M	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W X, AR, AUS) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE *************  *************  < CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% 5% 20% 5% 5% 5% 0.25PF 0.25PF 20% 7: EXCEPT 20%	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	R101 R102 R102 R103	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-824-11 1-216-824-11 1-216-825-11 1-216-830-11 1-216-834-11	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR  < RESISTOR >  METAL CHIP  METAL CHIP	2SA1235- 2SC3052E 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA	5% 77: US, 5% 77: US, 5% 655/EC, 5% 655/EC, 5% 655/EC, 5% 655/EC, 5% 655/EC, 5% 655/EC, 5% 655/EC, 5% 655/EC, 5%	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W (EC55)
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE *************  *************  < CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% 5% 20% 20% 5% 5% 5% 20% 0.25PF 0.25PF 20% 77: US, C	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	R101 R102 R102 R103	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-825-11 1-216-824-11 1-216-824-11 1-216-825-11 1-216-825-11	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR  < RESISTOR >  METAL CHIP  METAL CHIP	2SA1235- 2SC3052E 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA	5% 77: US, 5% 77: US, 5% C55/EC 5% 77: US, 5% E51, M 5% C55/EC 5% 555/EC	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W (EC55) 1/10W
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE **************  *************  < CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% 5% 20% 5% 5% 5% 0.25PF 0.25PF 20% 7: EXCEPT 20%	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	R101 R102 R102 R103 R103	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-824-11 1-216-824-11 1-216-825-11 1-216-830-11 1-216-834-11	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR  < RESISTOR >  METAL CHIP  METAL CHIP	2SA1235- 2SC3052E 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 1.8K 2.2K (EC 220 (EC 1.8K 2.2K (EC 220 (EC 1.8K 2.2K (EC 2.2K	5% 77: US, 5% 77: US, 5% 0555/ECT 5% 555/ECT 5% 5% 5% (ECT 5%	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W (EC55) 1/10W 77: AEP, RU)
R543 R544 R545 R546 S501 ************************************	1-216-809-11 1-216-809-11 1-216-817-11 1-216-817-11 1-762-369-11 ***********************************	METAL CHIP METAL CHIP METAL CHIP METAL CHIP METAL CHIP  < SWITCH >  SWITCH, SLIDE **************  *************  < CAPACITOR >  ELECT ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT ELECT CERAMIC CHIP ELECT	100 100 470 470 470 (REC/PB SW ************************************	5% 5% 5% 5% 5% 5% 20% 20% 5% 5% 5% 20% 0.25PF 0.25PF 20% 77: US, C 20%	1/10W 1/10W 1/10W 1/10W 1/10W ************************************	R101 R102 R102 R103 R103	6-705-621-01 6-600-580-01 8-729-600-22 8-729-620-07 6-551-270-01 6-551-270-01 1-216-813-11 1-216-824-11 1-216-824-11 1-216-825-11 1-216-830-11 1-216-834-11	IC STK433-060 IC STK433-070 IC STK433-090  < TRANSISTOR  < RESISTOR >  METAL CHIP  METAL CHIP	2SA1235- 2SC3052E 2SC3052E 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 2SA2026 1.8K 2.2K (EC 220 (EC 1.8K 2.2K (EC 220 (EC 1.8K 2.2K (EC 2.2K	5% 77: US, 5% 77: US, 5% 0555/ECT 5% 555/ECT 5% 5% 5% (ECT 5%	1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W CND/GX99) 1/10W X, AR, AUS) 1/10W 77: AEP, RU) 1/10W (EC55) 1/10W 77: AEP, RU) 1/10W

HI-AMP JACK KEY-CD KEY-LEFT KEY-RIGHT

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
R104	1-216-830-11	METAL CHIP	5.6K	5%	1/10W (EC55)	C406	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
					(2000)			< JACK >			
R104	1-216-834-11	METAL CHIP	12K	5%	1/10W						
				•	: AEP, RU)	J401	1-566-822-51	,	)		
R104	1-216-835-11	METAL CHIP	15K	5%	1/10W	J402	1-815-629-21	JACK (PHONES) ************************************	ماد	ماد ماد ماد ماد ماد ماد ماد	ماد ماد ماد ماد ماد ماد ماد ماد ماد
R105	1-216-841-11	METAL CHIP	(EC77: EXC 47K	5%	1/10W	*****		r	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	****	****
R106	1-216-841-11	METAL CHIP	47K	5%	1/10W			KEY-CD BOARD			
R107	1-216-821-11	METAL CHIP	1K	5%	1/10W			******			
R108	1-216-821-11	METAL CHIP	1K	5%	1/10W			< RESISTOR >			
R109	1-216-809-11		100	5%	1/10W			< TILOIOTOTI >			
					(EC55)	R407	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R109	1-216-864-11	SHORT CHIP	0 (EC77/G	X99)	, ,	R408	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W	R409	1-216-833-11	METAL CHIP	10K	5%	1/10W
					(EC55)	R410	1-216-837-11		22K	5%	1/10W
R110	1-216-864-11	SHORT CHIP	0 (EC77/G	iX99)		R411	1-216-841-11	METAL CHIP	47K	5%	1/10W
R111	1-216-841-11	METAL CHIP	47K	5%	1/10W			< SWITCH >			
R112	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R119	1-216-813-11	METAL CHIP	220	5%	1/10W	SW306	1-762-875-21	SWITCH, KEYBO	ARD (DISC	1)	
R120	1-216-813-11	METAL CHIP	220	5%	1/10W	SW307	1-762-875-21				
R121	1-216-813-11	METAL CHIP	220	5%	1/10W	SW308		SWITCH, KEYBO	,	3)	
D400	1 010 010 11	METAL OLUB	000	<b>5</b> 0/	4 (4 0) 4 (	SW309		SWITCH, KEYBO		OLUB (EV	OLIANOE)
R122	1-216-813-11	METAL CHIP	220 47K	5%	1/10W			SWITCH, KEYBO.			
R123	1-216-841-11	WETAL CHIP	47 K	5%	1/10W (EC55)	*****		r	****	****	****
R124	1-216-841-11	METAL CHIP	47K	5%	1/10W			KEY-LEFT BOARD	)		
	1 210 011 11	WEINE OIII	.,,,	070	(EC55)			******			
R125	1-216-845-11	METAL CHIP	100K	5%	1/10W						
					(EC55)			< CONNECTOR >			
R126	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
					(EC55)	CN401	1-815-552-11	PIN, CONNECTO	R (PWB) 4F	)	
R127	1-216-833-11	METAL CHIP	10K	5%	1/10W			< LED >			
	1 210 000 11	WEINE OIII	1011	070	(EC55)			(225)			
R128	1-216-833-11	METAL CHIP	10K	5%	1/10W	LED302	6-501-483-01	DIODE SLR-325	VCT31P		
R129	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R130	1-247-807-31		100	5%	1/4W			< RESISTOR >			
^ D454	1 010 001 01	,	55: AEP, UK,		. ,	D 40.4	1 010 001 11	METAL OLUB	417	F0/	4 14 00 14
<b>▲</b> R151	1-216-361-31	METAL OXIDE	0.22	5%	2W F	R404	1-216-821-11	METAL CHIP	1K	5%	1/10W
<b> ∆</b> R152	1-216-361-31	METAL OXIDE	0.22	5%	2W F			< SWITCH >			
R155	1-216-813-11		220	5%	1/10W						
R156	1-216-813-11	METAL CHIP	220	5%	1/10W	SW301	1-762-875-21	SWITCH, KEYBO	ARD ( <b>I</b> /じ)		
R159	1-216-833-11		10K	5%	1/10W			SWITCH, KEYBO			
R160	1-216-833-11	METAL CHIP	10K	5%	1/10W	*******	*********	******	*****	*****	*****
R161	1-216-833-11	METAL CHIP	10K	5%	1/10W			KEY-RIGHT BOAF	RD		
R162	1-216-833-11	METAL CHIP	10K	5%	1/10W			*******			
R165	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R166	1-216-833-11	METAL CHIP	10K	5%	1/10W			< CONNECTOR >			
R167	1-216-825-11	METAL CHIP	2.2K	5%	1/10W			5 66	. (5)4(5) 65		
R168	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	CN403	1-815-550-11	PIN, CONNECTOR	R (PWB) 2F	)	
		*******						< RESISTOR >			
										<b></b> .	
		JACK BOARD				R414	1-216-825-11		2.2K	5%	1/10W
		******				R415	1-216-829-11		4.7K	5%	1/10W
		< CAPACITOR >				R416 R417	1-216-833-11 1-216-837-11		10K 22K	5% 5%	1/10W 1/10W
		VALAULION >				R417	1-216-841-11		47K	5% 5%	1/10W
C401	1-164-156-11	CERAMIC CHIP	0.1uF		25V		. = 011 11			5,0	.,
C402	1-164-156-11	CERAMIC CHIP	0.1uF		25V			< SWITCH >			
C403	1-216-837-11		22K	5%	1/10W						
C404	1-216-837-11	METAL CHIP	22K	5%	1/10W	SW314	1-762-875-21	SWITCH, KEYBO		DE	INO 14055
C405	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	CMO1E	1_760 075 04	CWITCH NEVEO			ING MODE)
						500313	1-102-010-21	SWITCH, KEYBO	wun (──+)		

# HCD-EC55/EC77/GX99 Ver. 1.2

KEY-RIGHT LOW-AMP

Ref. No.	Part No.	Description			<u>Remark</u>	Ref. No.	Part No.	Description			Remark
	1-762-875-21	SWITCH, KEYBO	, ,					< RESISTOR >	>		
SW318	1-762-875-21 1-762-875-21		ARD (EQ)			R101	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
*******	*****	*********	********	******	******	R101	1-216-824-11	METAL CHIP	1.8K	C77: US, 5%	CND/GX99) 1/10W
		LOW-AMP BOAR	,	99)		D101	1 016 005 11	METAL CUID	(EC77: E2, E3		
		*****	• •			R101	1-216-825-11	WETAL CHIP	2.2K	5% (EC7	1/10W 7: AEP, RU)
		< CAPACITOR >				R102	1-216-823-11	METAL CHIP	1.5K (F	5% C77: US	1/10W CND/GX99)
C101	1-126-960-11		1uF	20%	50V	R102	1-216-824-11	METAL CHIP	1.8K `	5%	1/10W <sup>^</sup>
C102 C103	1-126-960-11 1-164-315-11	CERAMIC CHIP	1uF 470PF	20% 5%	50V 50V				(EC77: E2, E	3, E51, M)	(, AR, AUS)
C104	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	R102	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
C105	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	R103	1-216-834-11	METAL CHIP	12K	(EC7 5%	7: AEP, RU) 1/10W
C106	1-162-927-11	CERAMIC CHIP	100PF	5%	50V						7: AEP, RU)
C107 C108	1-126-947-11 1-126-947-11		47uF 47uF	20% 20%	35V 35V	R103	1-216-835-11	METAL CHIP	15K (EC77: E2, E3	5% 3 F51 MX	1/10W
C109	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V	R104	1-216-834-11	METAL CHIP	12K	5%	1/10W
C110	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V	R104	1-216-835-11	METAL CHIP	15K	(EC7 5%	7: AEP, RU) 1/10W
						11104	1-210-000-11	WILIAL OITH	(EC77: E2, E		
C111	1-126-968-11	ELECT	100uF	20%	50V	D105	1 016 041 11	METAL CLUD	471/	E0/	1/10W
C111	1-128-576-11	FLECT	100uF	20%	r us, cnd) 63V	R105 R106	1-216-841-11 1-216-841-11		47K 47K	5% 5%	1/10W
• • • • • • • • • • • • • • • • • • • •	20 0.0				CND/GX99)	R107	1-216-821-11		1K	5%	1/10W
C113	1-126-968-11	ELECT	100uF `	20%	50V ´	R108	1-216-821-11	METAL CHIP	1K	5%	1/10W
			•		r us, cnd)	R109	1-216-864-11	SHORT CHIP	0		
C113	1-128-576-11	ELECT	100uF (FC	20% 77: US (	63V CND/GX99)	R110	1-216-864-11	SHORT CHIP	0		
C115	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	R111	1-216-841-11		47K	5%	1/10W
0110	1 102 070 11	OLI II MINIO OTTI	0.0141	1070	201	R112	1-216-841-11		47K	5%	1/10W
C116	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	R119	1-216-813-11		220	5%	1/10W
C118	1-162-968-11	CERAMIC CHIP	0.0047uF		50V	R120	1-216-813-11		220	5%	1/10W
C119	1-216-864-11	SHORT CHIP	0								
C120	1-216-864-11	SHORT CHIP	0			R121	1-216-813-11	METAL CHIP	220	5%	1/10W
C151	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	R122	1-216-813-11	METAL CHIP	220	5%	1/10W
						R123	1-216-841-11	METAL CHIP	47K	5%	1/10W
C152	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	R124	1-216-841-11	METAL CHIP	47K	5%	1/10W
C153	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	R125	1-216-845-11	METAL CHIP	100K	5%	1/10W
C154		CERAMIC CHIP	0.1uF		50V						
C155	1-165-621-91	CERAMIC CHIP	0.1uF		50V	R126	1-216-829-11		4.7K	5%	1/10W
		COMMECTOR				R127	1-216-833-11		10K	5%	1/10W
		< CONNECTOR >				R128 R129	1-216-833-11 1-216-821-11		10K 1K	5% 5%	1/10W 1/10W
* CN101	1_560_505_11	PIN, CONNECTOR	2 10D			R130	1-247-807-31		100	5% 5%	1/10W 1/4W
ONTO	1-303-303-11	T IIV, CONNECTOR	1 101			11130	1-241-001-01	OANDON	100		7: AEP, RU)
		< DIODE >				å D454	4 040 004 04	METAL OVIDE		E0/	0144
D101	C FO1 720 O1	DIODE MAZOOS	10111100			⚠ R151	1-216-361-31			5%	2W F
D121 D151	6-501-730-01 6-500-335-01	DIODE MAZ805				⚠ R152 R155	1-216-361-31 1-216-813-11		0.22 220	5%	2W F 1/10W
D151	8-719-404-50	DIODE MA111-7				R156	1-216-813-11		220	5% 5%	1/10W
DIJZ	0-7 19-404-30	DIODE WATTE	17			R150	1-216-833-11		10K	5%	1/10W
		< IC >				11133	1-210-000-11	WILIAL OITH	TOK	J /0	1/1000
						R160	1-216-833-11		10K	5%	1/10W
IC101		IC STK433-070				R161	1-216-833-11		10K	5%	1/10W
IC102	6-600-580-01	IC STK433-090-	·E (EC77: US	S, CND/G	X99)	R162	1-216-833-11		10K	5%	1/10W
		TD 4 0 - 5 - 5 -				R165	1-216-833-11		10K	5%	1/10W
		< TRANSISTOR >	•			R166	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q101	8-729-600-22	TRANSISTOR	2SA1235-	F		R167	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q102	8-729-620-07		2SC3052E		F	R168	1-216-825-11		2.2K	5%	1/10W
Q151	6-551-270-01		2SA2026			l	******				
Q152	6-551-270-01		2SA2026								
						1					

Ref. No.	Part No.	<u>Description</u>			Remark	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
	A-1218-507-A	MAIN BOARD, CO	OMPLETE (	GX99)		C638	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
		MAIN BOARD, CO	,	,	S, CND)	C639	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
	A-1218-580-A	MAIN BOARD, CO	OMPLETE (I	EC77: A	ep, ru)	C640	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
	A-1218-600-A	MAIN BOARD, CO	OMPLETE (I	EC77: E3	3, AUS)	C641	1-126-961-11	ELECT	2.2uF	20%	50V
	A-1218-637-A	MAIN BOARD, CO	OMPLETE (I	EC77: E2	2, E51, AR)				(E)	CEPT A	P, UK, RU)
			`		, ,	C641	1-126-962-11	ELECT	3.3uF `	20%	50V
	A-1218-693-A	MAIN BOARD, CO	OMPLETE (	EC55: U	S, CND)					(AE	P, UK, RU)
	A-1218-725-A	MAIN BOARD, CO	OMPLETE (	EC55: Al	ep, uk, ru)						
	A-1218-774-A	MAIN BOARD, CO	OMPLETE (	EC55: SI	P, AUS)	C642	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
	A-1218-814-A	MAIN BOARD, CO	OMPLETE			C643	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
					51, MX, AR)					(EXCEP	T US, CND)
	A-1258-298-A	MAIN BOARD, CO	OMPLETE (I	EC55: KI	R)	C644	1-126-960-11		1uF	20%	50V
						C645	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
	A-1271-410-A	MAIN BOARD, CO		EC77: M	IX)	C646	1-126-960-11	ELECT	1uF	20%	50V
		******	*****			0040	4 405 007 04	0504440 01110		100/	0.017
		OA DA OLTOD				C648	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
		< CAPACITOR >				C649	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
0601	1 100 047 11	CL COT	47Г	200/	251	C650	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C601	1-126-947-11		47uF 22uF	20% 20%	35V	C651	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C602 C603	1-126-965-91	ELECT CERAMIC CHIP	0.01uF	20%	50V 50V	C652	1-125-837-91	CERAMIC CHIP	1uF	10%	TUS, CND) 6.3V
0003	1-102-974-11	GENAIVIIG GHIP	0.01ur	,	EC77/GX99)	0002	1-125-057-91	GENAIVIIG GHIP	TUF	1070	0.57
C604	1_100_566_01	CERAMIC CHIP	0.1uF	10%	25V	C653	1-169-097-11	CERAMIC CHIP	100PF	5%	50V
0004	1-100-300-91	CENAIVIIC CITIF	U. Tui		EC77/GX99)	0000	1-102-921-11	CENAIVIIC CITIF	10011		T US, CND)
C605	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C654	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
0000	1 100 300 31	OLITAWIO OTIII	O. I ui		EC77/GX99)	C655	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
				(	Lorridados	C656	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C606	1-162-974-11	CERAMIC CHIP	0.01uF		50V	C658	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
0000		02.0.000	0.0.4.	(	EC77/GX99)		20 00. 0.	02.0.000		. 0 / 0	0.01
C607	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C659	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C608	1-100-566-91		0.1uF	10%	25V	C660	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C609	1-162-974-11	CERAMIC CHIP	0.01uF		50V	C661	1-126-964-11	ELECT	10uF	20%	50V
C610	1-162-974-11	CERAMIC CHIP	0.01uF		50V	C662	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
						C663	1-126-960-11	ELECT	1uF	20%	50V
C611	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V						
C612	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V	C664	1-126-960-11	ELECT	1uF	20%	50V
C613	1-126-964-11	ELECT	10uF	20%	50V	C665	1-126-960-11	ELECT	1uF	20%	50V
C614	1-126-963-11		4.7uF	20%	50V	C666	1-162-960-11		220PF	10%	50V
C615	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C667	1-126-933-11		100uF	20%	16V
				(	EC77/GX99)	C668	1-100-597-91		0.1uF	10%	25V
0010		0554440						(	EC55:EXCEF	PT AEP, U	K, RU, KR)
C616	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	0000	4 400 000 04	EL EOT	000 5	000/	4014
0047	4 400 500 04	OED ANAIO OLUB	0.4	,	EC77/GX99)	C669	1-126-923-91		220uF	20%	10V
C617		CERAMIC CHIP	0.1uF	10%	25V	C670	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C618 C620	1-100-566-91	CERAMIC CHIP	0.1uF	10% 20%	25V	0671	1 104 650 01	,	EC55:EXCEF 100uF		,
C621	1-104-056-91		100uF 0.1uF	20%	10V 100V	C671 C673	1-104-658-91 1-126-925-91		470uF	20% 20%	10V 10V
0021	1-137-749-11	WITLAN	U. Tui		1007	C675	1-126-960-11		1uF	20%	50V
C622	1-114-471-51	FLECT	3300uF	20%	63V	0073	1 120 300 11	LLLOI	Tui	2070	30 V
OOLL	1 114 47 1 01				P, RU/GX99)	C676	1-126-960-11	FLECT	1uF	20%	50V
C622	1-128-550-11	,	2200uF	20%	50V	C677	1-135-516-11		3300uF	20%	63V
					(EC55)				77: EXCEPT		
C623	1-137-749-11	MYLAR	0.1uF		100V	C678	1-135-516-11	,	3300uF	20%	63V
C626	1-114-471-51	ELECT	3300uF	20%	63V			(EC	77: EXCEPT	US, CNI	), AEP, RU)
			EC77: US, (	OND, AE	P, RU/GX99)	C679	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C626	1-128-550-11	ELECT	2200uF	20%	50V	C680	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
					(EC55)						
						C681	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C627	1-126-943-11	ELECT	2200uF	20%	25V	C682	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C628	1-126-942-61	ELECT	1000uF	20%	25V	C683	1-162-966-11		0.0022uF	10%	50V
C630	1-126-947-11	ELECT	47uF	20%	35V	C684	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C631	1-126-933-11		100uF	20%	16V				EC55:EXCEF		,
C632	1-126-963-11	ELECT	4.7uF	20%	50V	C684	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
									(EC77:EX	CEPT AEI	P,UK/GX99)
C633		CERAMIC CHIP	0.068uF	10%	16V			0ED 41110 5:	4700-	F.C.	F0: /
C634		CERAMIC CHIP	0.068uF	10%	16V	C684	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C635	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	0005	4 400 045 41	000 4440 01110	1005		K, RU, KR)
0000	1 100 000 11	CL CCT	1		PT US, CND)	C685	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	
C636 C637	1-126-960-11	CERAMIC CHIP	1uF 0.068uF	20% 10%	50V 16V	CESE	1_169_010_11	CERAMIC CHIP	EC55:EXCEF 22PF	71 AEP, U 5%	,
U03/	1-110-203-11	CENAIVIIC CHIP	บ.บอฮนิโ	10%	16V	C685	1-102-919-11	CENAIVIIC CHIP			50V P,UK/GX99)
									(LUII.LA	JLI I MEI	,uivunss)

# HCD-EC55/EC77/GX99 Ver. 1.2 MAIN

Ref. No.	Part No.	<u>Description</u>			Remark	Ref. No.	Part No.	Descrip	tion			Remark
	1-164-315-11		470DE	E0/	50V					0.047	100/	
C685	1-104-313-11	CERAMIC CHIP	470PF	5% (AFP II	ουν K, RU, KR)	C827 C828	1-165-176-11 1-162-927-11	CERAM CERAM		0.047uF 100PF	10% 5%	16V 50V
C686	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	C829	1-117-863-11			0.47uF	10%	6.3V
		(1	EC55:EXCEP	T AEP, U	K, RU, KR)	C830	1-162-907-11	CERAM	IC CHIP	2PF	0.25PF	50V
C686	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	C831	1-117-863-11	CERAM	IC CHIP	0.47uF	10%	6.3V
0000		02.0.000	(EC77:EXC			C832	1-117-863-11	CERAM		0.47uF	10%	6.3V
C687	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V ´	C833	1-126-923-91	ELECT		220uF	20%	10V
					K, RU, KR)	C834	1-162-915-11			10PF	0.5PF	50V
C688	1-162-964-11	CERAMIC CHIP	0.001uF (FXCEP	10% TAFP II	50V K, RU, KR)	C835	1-165-176-11	CERAM	IC CHIP	0.047uF	10%	16V
C689	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C836	1-164-227-11	CERAM	IC CHIP	0.022uF	10%	25V
C690	1-162-966-11	CERAMIC CHIP	0.0022uF		50V	C837	1-162-915-11	CERAM		10PF	0.5PF	50V
						C838	1-162-964-11	CERAM		0.001uF	10%	50V
C691	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C840	1-100-566-91	CERAM	IC CHIP	0.1uF	10%	25V
C692	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C841	1-162-964-11	CERAM	IC CHIP	0.001uF	10%	50V
C693	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V							
C694	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C843	1-164-156-11	CERAM	IC CHIP	0.1uF		25V
C695	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C844	1-100-566-91	CERAM	IC CHIP	0.1uF	10%	25V
						C845	1-115-467-11	CERAM	IC CHIP	0.22uF	10%	10V
C696	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C846	1-162-970-11	CERAM		0.01uF	10%	25V
C698		CERAMIC CHIP	0.001uF	10%	50V	C847	1-100-566-91			0.1uF	10%	25V
					K, RU, KR)					*****		
C699	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C848	1-164-156-11	CERAM	IC CHIP	0.1uF		25V
0000		02.1.1.1.1.0	0.00.00		K, RU, KR)	C849	1-162-970-11	CERAM		0.01uF	10%	25V
C700	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C850	1-100-566-91	CERAM		0.1uF	10%	25V
0.00		02.0.000	0.00.00		K, RU, KR)			02		0	. 0 , 0	
C701	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V			< FILTE	R >			
				(E)	C77/GX99)							
				`	,	CF801	1-781-962-21	FILTER,	CERAMIC	;		
C702	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V			ŕ				
				(E	C77/GX99)			< CONN	ECTOR >			
C703	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V ´							
				(E	C77/GX99)	CN601	1-819-131-11	PIN, CO	NNECTOF	R 3P		
C704	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	* CN602	1-569-496-11	SOCKE	r, connec	CTOR 10P (I	EC77/GX9	9)
				(E	C77/GX99)	* CN603	1-569-496-11	SOCKE	r, connec	TOR 10P		
C802	1-126-933-11	ELECT	100uF	20%	16V	CN604	1-819-136-11	PIN, CO	NNECTOF	R 8P		
C803	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	CN605	1-568-828-11	CONNE	CTOR, FFC	9P		
0004	1 160 010 11	CEDAMIC CUID	10DF	5%	50V	CNICOC	1 704 701 11	COMME	OTOD FF	9P (EXCER	OT LIC CA	ID)
C804		CERAMIC CHIP	18PF			CN606	1-784-731-11		,	,	,	,
C805		CERAMIC CHIP	0.47uF	10%	6.3V	CN607	1-779-295-11			C (LIF (NON		
C806	1-162-962-11		470PF	10%	50V	CN608	1-779-289-11			C (LIF (NON		
C807		CERAMIC CHIP	1uF	10%	6.3V	* CN801	1-506-680-11	PLUG, (	CONNECTO	OR (2.5MM)	) 3P (AN I	ENNA)
C808	1-162-918-11	CERAMIC CHIP	18PF	5%	50V			< DIODI	= \			
C809	1_162_027_11	CERAMIC CHIP	100DE	5%	50V			ל טוטטו	->			
		CERAMIC CHIP	100FF 100PF	5% 5%	50V 50V	D601	6 500 225 01	DIODE	MC2838-	T110 1		
C810 C811		CERAMIC CHIP	100FF 100PF	5% 5%	50V 50V	D601	6-500-335-01 6-500-335-01		MC2838-			
C814		CERAMIC CHIP	0.0047uF		50V 50V	D602	8-719-404-50			X (EC77/G)	(00)	
0014	1-102-900-11	CENAIVIIC CITIF	0.0047 ui		US, CND)	D603	8-719-404-50		MA111-T		(33)	
C814	1_162_070_11	CERAMIC CHIP	0.01uF	10%	25V	D605	8-719-404-50		MA111-T			
0014	1-102-970-11	CLIMINIC CITIF	0.01ui		(US, CND)	D003	0-719-404-30	DIODL	IVIA I I I - I	^		
					(00, 0110)	D606	8-719-000-07	DIODE	MC2836			
C815	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	D607	6-501-046-01		1N5402-	F46		
0010	1 102 300 11	OLITAWIO OTTI	0.00+1 ui		US, CND)	D608	6-501-046-01		1N5402-			
C815	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	D609	6-501-046-01		1N5402-			
0010	1 102 070 11	OLIV WING OTH	0.0141		(US, CND)	D610	6-501-046-01		1N5402-			
C816	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	50.0	0 001 010 01	DIODE	1110 102	. 10		
C817		CERAMIC CHIP	0.01uF	10%	25V	D611	8-719-063-79	DIODE	1N4002B	1		
C819		CERAMIC CHIP	470PF	10%	50V	D612	8-719-063-79		1N4002B			
0010	. 102 002 11	0210 mm0 01111	11 01 1	1070	301	D614	8-719-404-50		MA111-T			
C820	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V	D615	8-719-063-79		1N4002B			
C821		CERAMIC CHIP	0.0022uF	10%	50V	D616	8-719-404-50		MA111-T			
C822	1-126-965-91		22uF	20%	50V	20.0	2	2.352				
C823	1-126-923-91		220uF	20%	10V	D617	6-500-335-01	DIODE	MC2838-	T112-1		
C824		CERAMIC CHIP	1uF	10%	10V 10V	D618	6-501-719-01		MAZ8039			
3027	50 000 11	22.0.000000		. 5 / 5		D619	8-719-063-79		1N4002B			
						1 2010	5	UDL				
C826	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	D620	8-719-063-79	DIODE	1N4002B	1		

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description			Domark
		•		<u>nemark</u>						<u>Remark</u>
D621	6-501-722-01	DIODE MAZ8043	3GMLS0		Q622	8-729-120-28			623-L5L6	
DCOO	0 501 750 01	DIODE MAZOOO	OMI CO		Q624	8-729-036-86			203Y-AT	
D622		DIODE MAZ8082			Q801	8-729-120-28			623-L5L6	
D623		DIODE 1PS226-			Q802	8-729-120-28	TRANSISTUR	25011	623-L5L6	
D801 D802		DIODE SVC347A DIODE 1PS226-			0000	6 550 204 01	TDANCICTOD	2005	477 T100	1
D802		DIODE 1F3220-			Q803	6-550-304-01	INANSISTUN	23004	477-T122-	1
D003	0-301-303-01	DIODE 3V0230-	I D-L				< RESISTOR :	>		
D804	6-501-369-01	DIODE SVC230-	TB-E							
D805	8-719-062-51	DIODE 1PS226-	115		R601	1-216-817-11	METAL CHIP	470	5%	1/10W
D806	8-719-062-51	DIODE 1PS226-	115		R603	1-216-793-11	METAL CHIP	4.7	5%	1/10W
										S, CND/GX99)
		< FERRITE BEAD	>		R603	1-216-794-11	METAL CHIP	5.6	5%	1/10W
EDC01	1 410 470 01	INDUCTOR (CMA	II TVDE\		DC04	1 016 045 11	METAL CLUD	(EU55/E 100K		EPT US, CND)
FB601	1-412-473-21	INDUCTOR (SMA	LL IYPE)		R604 R605	1-216-845-11 1-216-799-11		100K	5% 5%	1/10W 1/10W
		< FILTER >			11003	1-210-733-11	WILIAL OITH	10		S, CND/GX99)
		VIIII /							(2011.00	5, 01 <b>1</b> D/G/35)
FL801	1-130-483-00	CAP, PE TEREPHT	THALATE 0.01MF		R606	1-216-797-11	METAL CHIP	10	5%	1/10W
FL802		FILTER, CERAMIC								(EC77/GX99)
FL803	1-236-711-21	FILTER, BAND PA	SS		R607	1-216-797-11	METAL CHIP	10	5%	1/10W
										(EC77/GX99)
		< IC >			R608	1-216-797-11	METAL CHIP	10	5%	1/10W
IC602	6 710 200 01	IC R2S15904SP			Deno	1-216-829-11	METAL CLID	4.7K	5%	(EC77/GX99) 1/10W
IC801		IC LV23003VA			R609 R610	1-216-829-11		4.7K 4.7K	5% 5%	1/10W
10001	0-700-040-01	10 LV23003VA			11010	1-210-029-11	WILIAL OITH	4.710	J /0	1/1000
		< JACK >			R611	1-216-797-11	METAL CHIP	10	5%	1/10W
					R612	1-216-797-11	METAL CHIP	10	5%	1/10W
J601	1-815-025-11	JACK, PIN 1P (SU	JBWOOFER) (GX99)		R613	1-216-833-11	METAL CHIP	10K	5%	1/10W
		,	, , ,		R614	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< JUMPER RESIS	TOR >		R615	1-216-797-11	METAL CHIP	10	5%	1/10W
JR601	1-216-864-11		0		R616	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
JR602 JR603	1-216-864-11 1-216-296-11		0		DC1C	1-216-832-11	METAL CLUD	8.2K	E0/	(EC55) 1/10W
JR604	1-216-296-11		0		R616	1-210-032-11	WEIAL CHIP	0.ZN	5% (F)	277: AEP, RU)
011004	1 210 004 11	OHOITI OHII	O		R616	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< COIL >				. 2.0 000				MX, AR, AUS)
					R616	1-216-835-11	METAL CHIP	` 15K	5%	1/10W
L601		COIL, AIR-CORE							(EC77: US	S, CND/GX99)
L602		COIL, AIR-CORE	(EC77/GX99)		R617	1-216-833-11	METAL CHIP	10K	5%	1/10W
L603		COIL, AIR-CORE			D040	1 010 000 11	METAL OLUB	4014	<b>5</b> 0/	4 (4 0) 14
L604 L801		COIL, AIR-CORE COIL, MW OSC			R618 R619	1-216-833-11 1-216-828-11		10K 3.9K	5% 5%	1/10W 1/10W
LOUI	1-430-390-11	COIL, IVIVV USC			nois	1-210-020-11	WEIAL CHIP	3.91	370	(EC55)
L802	1-457-168-11	COIL DET			R619	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
L803		COIL, AIR-CORE				. 2.0 002		0.2		C77: AEP, RU)
L804	1-457-163-11	COIL, AIR-CORE			R619	1-216-833-11	METAL CHIP	10K	5%	1/10W
L805	1-457-161-11	COIL, AM ANTEN	NA					(EC77: E2		MX, AR, AUS)
					R619	1-216-835-11	METAL CHIP	15K	5%	1/10W
		< TRANSISTOR >							(EC77: US	S, CND/GX99)
Q601	8-729-037-03	TDANGISTOD	KTA1266GR-AT		R620	1-216-829-11	METAL CHID	4.7K	5%	1/10W
Q602	8-729-120-28		2SC1623-L5L6		R621	1-216-829-11		4.7K 4.7K	5%	1/10W
Q603	8-729-120-28		2SC1623-L5L6		R622	1-216-839-11		33K	5%	1/10W
Q604	8-729-120-28		2SC1623-L5L6		R623	1-216-833-11		10K	5%	1/10W
Q605	8-729-120-28		2SC1623-L5L6		R624	1-216-833-11		10K	5%	1/10W
Q606		TRANSISTOR	2SC1623-L5L6		R625	1-216-839-11	METAL CHIP	33K	5%	1/10W
Q608	8-729-120-28		2SC1623-L5L6		R626	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q616	8-729-120-28	TRANSISTOR	2SC1623-L5L6	THE OND!	R627	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
0617	8-729-120-28	TRANSISTOR	(EXCEPT 2SC1623-L5L6	US, CND)	R629 R630	1-216-829-11 1-216-841-11		4.7K 47K	5% 5%	1/10W 1/10W
Q617	0-129-120-20	IUMISISIUM		US, CND)	กขอบ	1-210-041-11	WIL IAL UTIP	4/ N	5%	1/1000
Q618	8-729-600-22	TRANSISTOR	2SA1235-F	50, 5ND)	R631	1-216-797-11	METAL CHIP	10	5%	1/10W
							•	. •	2,3	(EC77/GX99)
Q619	8-729-120-28	TRANSISTOR	2SC1623-L5L6							,
					I					

## MAIN

Def Ne	David Na	Dagawintian			Damani	l Def Ne	David Na	Dagawintian			Damani
Ref. No.	Part No.	Description			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			Remark
R632	1-216-845-11	METAL CHIP	100K	5%	1/10W	R690	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Dead	1 016 045 11	METAL CLUD	1001/	5%	C77/GX99)	R691	1-216-833-11	METAL CHIP	10K 4.7K	5%	1/10W 1/10W
R633	1-216-845-11	METAL CHIP	100K		1/10W C77/GX99)	R692	1-216-829-11	METAL CHIP	(EXCEPT US	5% CND 4	
R634	1-249-401-11	CARBON	47	5%	1/4W	R692	1-216-833-11	METAL CHIP	10K	5%	1/10W
	. 2.0 .0	07.11.12.01.1			C77/GX99)	11002	1 210 000 11	ME IAE OIIII			EP, UK, RU)
R635	1-249-401-11	CARBON	47	5% `	1/4W	R693	1-216-825-11	METAL CHIP	2.2K `	5%	1/10W
				(E	C77/GX99)						
						R694	1-216-833-11	METAL CHIP	10K	5%	1/10W
R636	1-249-401-11	CARBON	47	5%	1/4W					,	PT US, CND)
DCOO	1 040 401 11	CARRON	47		C77/GX99)	R695	1-216-826-11	METAL CHIP	2.7K	5% (EVCE)	1/10W PT US, CND)
R638 R639	1-249-401-11 1-216-845-11	METAL CHIP	47 100K	5% 5%	1/4W 1/10W	R696	1-216-833-11	METAL CHIP	10K	5%	1/10W
R640	1-216-845-11	METAL CHIP	100K	5%	1/10W	R697	1-216-821-11	METAL CHIP	1K	5%	1/10W
R641	1-249-401-11		47	5%	1/4W	R700	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R642	1-249-401-11	CARBON	47	5%	1/4W	R701	1-216-864-11	SHORT CHIP	0 (US, CI	ND)	
R643	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R702	1-216-864-11	SHORT CHIP	0 (US, CI	ND)	
R644	1-216-821-11	METAL CHIP	1K	5%	1/10W	R704	1-216-829-11		4.7K	5%	1/10W
R645	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R706	1-216-813-11	METAL CHIP	220	5%	1/10W
				(	EC77: MX)	R707	1-216-813-11	METAL CHIP	220	5%	1/10W
R645	1-216-829-11	METAL CHID	4.7K	5%	1/10W	R708	1-216-833-11	METAL CHIP	10K	5%	1/10W
N043	1-210-029-11	WILTAL CITIF	(EC55/EC77			R709	1-216-821-11	METAL CHIP	1K	5%	1/10W
R646	1-216-809-11	METAL CHIP	100	5%	1/10W	R710	1-216-839-11	METAL CHIP	33K	5%	1/10W
R647	1-216-797-11	METAL CHIP	10	5%	1/10W	""	1 210 000 11	ME IAE OIIII	OOK	0 70	(GX99)
R648	1-216-841-11	METAL CHIP	47K	5%	1/10W	R711	1-216-839-11	METAL CHIP	33K	5%	1/10W
R649	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						(GX99)
						R712	1-216-820-11	METAL CHIP	820	5%	1/10W
R650	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						(GX99)
R651	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	D745	1 010 000 11	METAL OLUB	400	<b>5</b> 0/	4404
R652	1-216-809-11 1-216-864-11	METAL CHIP	100 0	5%	1/10W	R715	1-216-809-11	METAL CHIP METAL CHIP	100	5%	1/10W 1/10W
R655 R658	1-210-004-11	CARBON	100	5%	1/2W	R716 R717	1-216-821-11 1-249-403-11	CARBON	1K 68	5% 5%	1/10W 1/4W
H030	1-200-007-11	CANDON	100	J /0	1/ <b>∠ V V</b>	R717	1-249-403-11	CARBON	68	5%	1/4VV 1/4W
R660	1-260-087-11	CARBON	100	5%	1/2W	R719	1-249-403-11		68	5%	1/4W
R661	1-260-087-11		100	5%	1/2W			07.11.12.011	•	0 / 0	.,
R662	1-260-087-11	CARBON	100	5%	1/2W	R720	1-216-837-11	METAL CHIP	22K	5%	1/10W
R663	1-260-087-11		100	5%	1/2W	R722	1-216-809-11	METAL CHIP	100	5%	1/10W
R664	1-260-087-11	CARBON	100	5%	1/2W	R724	1-249-395-11	CARBON	15	5%	1/4W
Door	1 010 001 11	MAETAL OLUB	417	F0/	4 (4 0) 4 (	D704	1 0 17 701 01	0.4.00.044	,		CND/GX99)
R666	1-216-821-11	METAL CHIP	1K	5%	1/10W	R724	1-247-791-91	CARBON	22	5%	1/4W
R667 R668	1-216-841-11 1-260-087-11	METAL CHIP	47K 100	5% 5%	1/10W 1/2W	R725	1-249-395-11	CADDON	(EU55/EU7 15	7: EXUER	PT US, CND) 1/4W
R671	1-260-087-11		100	5%	1/2W	N/23	1-249-393-11	UANDUN			CND/GX99)
R674	1-249-401-11		47	5%	1/4W				(-	077.00,	OND/ axioo)
						R725	1-247-791-91	CARBON	22	5%	1/4W
R675	1-249-401-11	CARBON	47	5%	1/4W				(EC55/EC7	7: EXCEF	PT US, CND)
R676	1-216-833-11	METAL CHIP	10K	5%	1/10W	R726	1-249-395-11	CARBON	15	5%	1/4W
R677	1-216-833-11	METAL CHIP	10K	5%	1/10W					,	CND/GX99)
R678	1-216-841-11	METAL CHIP	47K	5%	1/10W	R726	1-247-791-91	CARBON	22	5%	1/4W
R679	1-216-829-11	METAL CHIP	4.7K	5%	1/10W US, CND)	D707	1 016 000 11	METAL CLUD	*		PT US, CND)
				(EXCEPT	US, GND)	R727 R728	1-216-829-11 1-216-829-11	METAL CHIP METAL CHIP	4.7K 4.7K	5% 5%	1/10W 1/10W
R680	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	11720	1-210-029-11	WILIAL OITH	4.710	J /0	1/1000
11000	1 210 020 11	WEINE OIII			US, CND)	R729	1-216-845-11	METAL CHIP	100K	5%	1/10W
R681	1-216-832-11	METAL CHIP	8.2K	`5%	1/10W	R731	1-216-809-11	METAL CHIP	100	5%	1/10W
R682	1-216-833-11	METAL CHIP	10K	5%	1/10W					(AEP,	UK, RU, KR)
				,	US, CND)	R731	1-216-864-11		,		JK, RU, KR)
R683	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R732	1-216-809-11	METAL CHIP	100	5%	1/10W
D604	1 010 000 11	METAL OLUB	0.01/	,	US, CND)	D700	1 010 004 11	CHUDE CITIE	0 /5705		UK, RU, KR)
R684	1-216-832-11	WIETAL CHIP	8.2K	5%	1/10W	R732	1-216-864-11	SHUKI CHIP	U (EXCE	1 AEP, L	JK, RU, KR)
R685	1-216-841-11	METAL CHIP	47K	5%	1/10W	R801	1-216-809-11	METAL CHIP	100	5%	1/10W
R686	1-216-842-11	METAL CHIP	56K	5%	1/10W	R802	1-216-801-11	METAL CHIP	22	5%	1/10W
R687	1-216-849-11	METAL CHIP	220K	5%	1/10W	R803	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R688	1-216-833-11	METAL CHIP	10K	5%	1/10W	R804	1-216-801-11	METAL CHIP	22	5%	1/10W
R689	1-216-838-11		27K	5%	1/10W	R805	1-216-853-11		470K	5%	1/10W
						1					

# HCD-EC55/EC77/GX99 Ver. 1.2 MAIN PANEL

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
R806	1-216-841-11	METAL CHIP	47K	5%	1/10W			< VIBRATOR >			
R807	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R808	1-216-801-11		22	5%	1/10W	X801		VIBRATOR, CRYS			
R809	1-216-809-11		100	5%	1/10W	******	*****	******	******	*****	******
R810	1-216-829-11		4.7K	5%	1/10W					(0)(00)	
R811	1-216-845-11	METAL CHIP	100K	5%	1/10W			PANEL BOARD, (		,	0.000
D040	4 040 044 44	METAL OLUB	471/	<b>5</b> 0/	4 (4 0) 4 (			PANEL BOARD, (			
R812	1-216-841-11		47K 470K	5%	1/10W			PANEL BOARD, (			
R813 R814	1-216-853-11 1-216-837-11		470K 22K	5% 5%	1/10W 1/10W			PANEL BOARD, ( PANEL BOARD, (			
R815	1-216-833-11		10K	5% 5%	1/10W		A-1210-390-A	PANEL BUAND, C	OUNIFLETE	(EU//. E	o)
R816	1-216-821-11		1K	5%	1/10W		Δ-1218-635-Δ	PANEL BOARD, (	OMPLETE	(EC77: E	٥١
11010	1 210 021 11	WEIAL OIIII	IIX	3 /0	1/1000			PANEL BOARD, (			
R817	1-216-841-11	METAL CHIP	47K	5%	1/10W			PANEL BOARD, (		`	, ,
R818	1-216-833-11		10K	5%	1/10W			PANEL BOARD, (			
R819	1-216-839-11		33K	5%	1/10W			PANEL BOARD, (			
R820	1-216-829-11		4.7K	5%	1/10W		7. 1210 720 7.	Travel Borato, (	JOHN EETE	(2000.71	LI, OII,
R821	1-216-829-11		4.7K	5%	1/10W		A-1218-754-A	PANEL BOARD, (	OMPLETE	(FC55: R	U)
11021	1 210 020 11	WEINE OIM	7.710	0 70	1/1000			PANEL BOARD, (			
R822	1-216-809-11	METAL CHIP	100	5%	1/10W			PANEL BOARD, (			
R823	1-216-833-11		10K	5%	1/10W			PANEL BOARD, (		`	,
R824	1-216-817-11		470	5%	1/10W			PANEL BOARD, (			
R825	1-216-829-11		4.7K	5%	1/10W		N 1210 001 N	Trivel Bornib,	JOINII LLIL	(2000. 10	λ)
R826	1-216-821-11		1K	5%	1/10W		Δ-1247-478-Δ	PANEL BOARD, (	OMPLETE	(FC77: ΔΙ	IS)
11020	1 210 021 11	WEINE OIM	110	0 70	1/1000			PANEL BOARD.		,	,
R827	1-216-845-11	METAL CHIP	100K	5%	1/10W		7. 12 17 101 7.	******		(2000.71	00)
R829	1-216-829-11		4.7K	5%	1/10W						
R830	1-216-827-11		3.3K	5%	1/10W		2-649-117-01	HOLDER (LCD)			
R831	1-216-825-11		2.2K	5%	1/10W			PLATE, LIGHT GI	IIDE		
R832	1-216-857-11		1M	5%	1/10W		2-649-179-01	,	JIDL		
11002	1 210 007 11	WEINE OIM	1101	0 70	1/1000			SHEET (REFLECT	OR)		
R836	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W		2 000 170 01	011221 (11212201	011)		
R837	1-216-845-11		100K	5%	1/10W			< CAPACITOR >			
R838	1-216-837-11		22K	5%	1/10W			(0/11/10/10/17			
R839	1-216-797-11		10	5%	1/10W	C301	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R840	1-216-864-11		0	070	1, 1011	C302	1-126-964-11		10uF	20%	50V
	. 2.0 00	0.1011. 01	· ·			C303	1-126-964-11		10uF	20%	50V
R841	1-216-833-11	METAL CHIP	10K	5%	1/10W	C304		CERAMIC CHIP	0.1uF	20,0	25V
R842	1-216-864-11		0	0,0	.,	C305	1-126-964-11		10uF	20%	50V
R843	1-216-845-11		100K	5%	1/10W						
R844	1-216-825-11		2.2K	5%	1/10W	C306	1-104-655-91	ELECT	470uF	20%	6.3V
R846	1-216-797-11		10	5%	1/10W	C307	1-104-655-91		470uF	20%	6.3V
						C308		CERAMIC CHIP	0.1uF	10%	25V
R847	1-216-864-11	SHORT CHIP	0			C309	1-126-965-91		22uF	20%	50V
R848	1-216-809-11		100	5%	1/10W	C310	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R849	1-216-813-11	METAL CHIP	220	5%	1/10W						
R850	1-216-809-11	METAL CHIP	100	5%	1/10W	C311	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R851	1-216-801-11	METAL CHIP	22	5%	1/10W	C312	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C313	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
R852	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C314	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
R853	1-216-819-11	METAL CHIP	680	5%	1/10W	C315	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
		< RELAY >				C316	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
						C317	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
RY601	1-755-307-11	RELAY (EC77/G)	(99)			C319	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
RY602	1-755-307-11	RELAY				C320	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
						C321	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< TRANSFORME	R >								
						C325	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
T801	1-433-741-11	TRANSFORMER,	, IF			C326	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
						C327	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
		< TERMINAL >				C328	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
						C330		CERAMIC CHIP	0.1uF		25V
TB601	1-780-381-11	TERMINAL BOAF	RD, PUSH	(ANTENNA	() 4P						
		(SPE	AKER HIGH	H FREQ.)(E	C77/GX99)	C332	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
TB602	1-536-708-81	TERMINAL BOAF	RD, PUSH	(4P)	,	C340		CERAMIC CHIP	0.047uF	10%	16V
			(S	PEAKER L	OW FREQ.)	C341	1-164-156-11	CERAMIC CHIP	0.1uF		25V
					,	C342	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C343	1-126-965-91	ELECT	22uF	20%	50V

# HCD-EC55/EC77/GX99 Ver. 1.2 PANEL

Ref. No.	Part No.	<u>Description</u>		<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>
		< CONNECTOR >			Q311	8-729-024-43	TRANSISTOR	2SA1365-	T112-1EF	
					Q312	8-729-024-43	TRANSISTOR	2SA1365-	T112-1EF	
CN301	1-779-564-21		C (LIF (NON-ZIF)) 27P	)	Q313	8-729-024-43	TRANSISTOR	2SA1365-	T112-1EF	
CN302	1-784-735-11	CONNECTOR, FFO	C 13P		Q314	8-729-024-43		2SA1365-		:
					Q315	8-729-047-62	TRANSISTOR	2SC3440-	T12-1F	
		< DIODE >								
					Q316	8-729-047-62	TRANSISTOR	2SC3440-	T12-1F	
D301	6-501-722-01	DIODE MAZ804			Q317	8-729-047-62		2SC3440-	T12-1F	
D302		DIODE MA111-7	X		Q318	8-729-047-62	TRANSISTOR	2SC3440-	T12-1F	
D303		DIODE MC2836								
D304		DIODE MA111-7					< RESISTOR >			
D305	8-719-404-50	DIODE MA111-7	X						==.	
		10			R301	1-216-809-11		100	5%	1/10W
		< IC >			R302	1-216-809-11		100	5%	1/10W
10004	0 007 577 04	IO MIDOGOODE	0.40054		R303	1-216-809-11		100	5%	1/10W
IC301	6-807-577-01	IC MB90803PF-			R304	1-216-809-11		100	5%	1/10W
IC302	6-600-349-31	IC NJL24H400A			R305	1-216-809-11	METAL CHIP	100	5%	1/10W
		ILIMPED DEGLE	TOD		Door	1 010 000 11	METAL OLUB	400	F0/	4 /4 0 14 /
		< JUMPER RESIS	TUK >		R306	1-216-809-11		100	5%	1/10W
10004	1 010 004 11	CHODT OHID	0		R307	1-216-809-11	METAL CHIP	100	5%	1/10W
JR301	1-216-864-11	SHORT CHIP SHORT CHIP	0		R308	1-216-809-11		100	5%	1/10W
JR302	1-216-296-11		0		R309	1-216-809-11	METAL CHIP	100	5% 5%	1/10W
JR303 JR304	1-216-296-11 1-216-296-11	SHORT CHIP SHORT CHIP	0		R310	1-216-809-11	METAL CHIP	100	5%	1/10W
JR305	1-216-296-11		0		R311	1-216-809-11	METAL CHIP	100	5%	1/10W
มทอบอ	1-210-290-11	SHUNT CHIP	U		R312	1-216-809-11	METAL CHIP	100	5% 5%	1/10W
JR306	1-216-864-11	SHORT CHIP	0		R313	1-216-809-11		100	5%	1/10W
JR307	1-216-296-11		0		R314	1-216-809-11		100	5%	1/10W
JR308	1-216-296-11	SHORT CHIP	0		R315	1-216-809-11	METAL CHIP	100	5%	1/10W
JR309	1-216-296-11		0		11010	1-210-009-11	WILTAL OTTI	100	J /0	1/1000
JR310	1-216-864-11	SHORT CHIP	0		R316	1-216-809-11	METAL CHIP	100	5%	1/10W
011010	1 210 004 11	OHOITI OHII	O		R317	1-216-809-11		100	5%	1/10W
JR311	1-216-864-11	SHORT CHIP	0		R318	1-216-809-11	METAL CHIP	100	5%	1/10W
JR312	1-216-296-11		0		R319	1-216-809-11	METAL CHIP	100	5%	1/10W
JR313	1-216-864-11		0		R320	1-216-809-11		100	5%	1/10W
JR314	1-216-296-11	SHORT CHIP	0		11020	1 210 000 11	WEINE OIII	100	0 70	1/1000
JR315	1-216-296-11		0		R321	1-216-809-11	METAL CHIP	100	5%	1/10W
00.0	. 2.0 200	00	·		R322	1-216-809-11	METAL CHIP	100	5%	1/10W
JR316	1-216-296-11	SHORT CHIP	0		R323	1-216-809-11		100	5%	1/10W
JR317	1-216-296-11	SHORT CHIP	0		R324	1-216-809-11	METAL CHIP	100	5%	1/10W
JR318	1-216-296-11	SHORT CHIP	0		R325	1-216-797-11	METAL CHIP	10	5%	1/10W
JR319	1-216-864-11	SHORT CHIP	0							
JR320	1-216-296-11	SHORT CHIP	0		R326	1-216-809-11	METAL CHIP	100	5%	1/10W
					R327	1-216-809-11	METAL CHIP	100	5%	1/10W
JR321	1-216-296-11	SHORT CHIP	0		R328	1-216-833-11	METAL CHIP	10K	5%	1/10W
					R329	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
		< LIQUID CRYSTA	AL DISPLAY >		R330	1-216-819-11	METAL CHIP	680	5%	1/10W
LCD301	1-805-973-11	DISPLAY PANEL,	LIQUID CRYSTAL		R331	1-216-845-11		100K	5%	1/10W
					R332	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< LED >			R333	1-216-845-11		100K	5%	1/10W
					R334	1-216-833-11	METAL CHIP	10K	5%	1/10W
LED301	6-501-479-01	DIODE 1L0341Y	23E0CA602 (BACK LI	GHT)	R335	1-216-833-11	METAL CHIP	10K	5%	1/10W
									==.	
		< TRANSISTOR >			R336	1-216-833-11		10K	5%	1/10W
0004	0.700.400.00	TDANGIOTOD	0004000   51.0		R337	1-216-864-11		0	<b>5</b> 0/	4 (4 0) 14
Q301	8-729-120-28		2SC1623-L5L6		R338	1-216-789-11	METAL CHIP	2.2	5%	1/10W
Q302	8-729-037-13		KTA1271Y		R339	1-216-789-11		2.2	5%	1/10W
Q303	8-729-120-28		2SC1623-L5L6		R340	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
Q304	8-729-120-28		2SC1623-L5L6		D044	1 016 000 11	METAL CLUD	221/	E 0/	1/1014
Q305	8-729-120-28	INAINDIDIUK	2SC1623-L5L6		R341	1-216-839-11	METAL CHIP	33K	5%	1/10W
0206	0 700 000 00	TDANCICTOD	DT1N4410 TD 1		R342	1-216-849-11	METAL CHIP	220K	5%	1/10W
Q306	8-729-038-28		RT1N441C-TP-1		R343	1-216-853-11	METAL CHIP	470K	5%	1/10W
Q307	8-729-600-22		2SA1235-F		R344	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
Q308 Q309	8-729-038-28 8-729-040-76	TRANSISTOR	RT1N441C-TP-1 KTA1273-Y-AT		R345	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
Q310	8-729-120-28		2SC1623-L5L6		R346	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q010	0 120-120-20	HANOIOTUN	2001020-LJLU		R347	1-216-817-11		47K 470	5% 5%	1/10W
					110-11	1 210 011-11	WEINE OITH	-110	J /0	1, 1000

Ver. 1.2
PANEL PT

Ref. No.	Part No.	<b>Description</b>			<u>Remark</u>	Ref. No.	Part No.	<b>Description</b>			<u>Remark</u>
R348	1-216-841-11	METAL CHIP	47K	5%	1/10W	R393	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R349	1-216-817-11		470	5%	1/10W	11000	1 210 020 11	WETAL OTH	2.211	<b>J</b> /0	(MX)
R350	1-216-841-11		47K	5%	1/10W	R393	1-216-833-11	METAL CHIP	10K	5%	1/10W
11000	. 210 011 11	WEINE OIII		0 70	171011	11000	1 210 000 11	WEINE OIM	1010		(E3, KR, SP)
R351	1-216-817-11	METAL CHIP	470	5%	1/10W	R393	1-216-840-11	METAL CHIP	39K	5%	1/10W
R352	1-216-841-11		47K	5%	1/10W	11000	1 210 040 11	WEINE OIII	OOK	0 70	(E2)
R353	1-216-817-11		470	5%	1/10W						(LL)
R354	1-216-841-11		47K	5%	1/10W	R393	1-216-845-11	METAL CHIP	100K	5%	1/10W
R355	1-216-817-11		470	5%	1/10W	11030	1-210-045-11	WILIAL OITH	1001	J /0	(E51, AR)
ทงงง	1-210-017-11	WIL TAL CITIF	470	J /0	1/1000	R393	1-218-867-11	METAL CHID	6.8K	0.5%	(L31, An) 1/10W
R356	1-216-817-11	METAL CHID	470	5%	1/10W	กงขึ้ง	1-210-007-11	WIL TAL CITIF	0.01	0.5 /6	
						Bane	1 016 064 11	CHODT CHID	0		(AUS)
R357	1-216-841-11		47K	5%	1/10W	R396	1-216-864-11			E0/	4 /4 0 14
R358	1-216-841-11		47K	5%	1/10W	R397	1-216-817-11		470	5%	1/10W
R359	1-216-817-11		470	5%	1/10W	R399	1-216-833-11	METAL CHIP	10K	5%	1/10W
R360	1-216-817-11	METAL CHIP	470	5%	1/10W	D 400	1 010 001 11	OLIODE OLUD	0		
D004		METAL OLUB	4717	<b>5</b> 0/	4/4004/	R400	1-216-864-11		0		
R361	1-216-841-11		47K	5%	1/10W	R401	1-216-864-11		0	===	
R362	1-216-837-11		22K	5%	1/10W	R402	1-216-845-11		100K	5%	1/10W
R363	1-216-837-11		22K	5%	1/10W	R405	1-216-821-11		1K	5%	1/10W
R364	1-216-837-11		22K	5%	1/10W	R406	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R365	1-216-837-11	METAL CHIP	22K	5%	1/10W						
						R412	1-216-821-11		1K	5%	1/10W
R366	1-216-837-11	METAL CHIP	22K	5%	1/10W	R413	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R367	1-216-837-11	METAL CHIP	22K	5%	1/10W	R419	1-216-837-11		22K	5%	1/10W
R368	1-216-837-11	METAL CHIP	22K	5%	1/10W	R420	1-216-845-11	METAL CHIP	100K	5%	1/10W
R369	1-216-821-11	METAL CHIP	1K	5%	1/10W	R421	1-216-833-11	METAL CHIP	10K	5%	1/10W
R370	1-216-821-11	METAL CHIP	1K	5%	1/10W						
								< SWITCH >			
R371	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R372	1-216-821-11	METAL CHIP	1K	5%	1/10W	S301	1-786-417-11	ENCODER, ROTA	RY (VOLUN	ΛE)	
R373	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R374	1-216-821-11	METAL CHIP	1K	5%	1/10W			< SWITCH >			
R375	1-216-821-11	METAL CHIP	1K	5%	1/10W						
						SW303	1-762-875-21	SWITCH, KEYBO	ARD (FUNC	TION)	
R376	1-216-837-11	METAL CHIP	22K	5%	1/10W	SW304	1-762-875-21	SWITCH, KEYBO	ARD (CD ►	·II)	
R377	1-216-837-11	METAL CHIP	22K	5%	1/10W	SW305	1-762-875-21	SWITCH, KEYBO	ARD (TUNE	R/BAND	1)
R378	1-216-841-11	METAL CHIP	47K	5%	1/10W	SW311	1-762-875-21	SWITCH, KEYBO	ARD (■)		
R379	1-216-845-11	METAL CHIP	100K	5%	1/10W	SW312	1-762-875-21	SWITCH, KEYBO	ARD (TÚNII	NG – I≪	<b>⊲</b> ∢()
R380	1-216-817-11	METAL CHIP	470	5%	1/10W						
						SW313	1-762-875-21	SWITCH, KEYBO	ARD (TUNII	NG + ►	
R381	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R382	1-216-833-11	METAL CHIP	10K	5%	1/10W			< VIBRATOR >			
R383	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R384	1-216-833-11	METAL CHIP	10K	5%	1/10W	X301	1-760-252-12	VIBRATOR, CRYS	STAL (32.76	8kHz)	
R385	1-216-821-11	METAL CHIP	1K	5%	1/10W	X302	1-795-058-21	VIBRATOR, CERA	AMIC (5MH	z) ´	
						******	******	******	*****	*****	*****
R386	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R387	1-216-821-11	METAL CHIP	1K	5%	1/10W			PT BOARD (EXCE	EPT EC55: L	JS, CND	)
R388	1-216-864-11	SHORT CHIP	0 (US, CN	D)				******			
R389	1-216-829-11		4.7K	5%	1/10W						
			(EC77	: EXCEP1	r us, cnd)			< CAPACITOR >			
R389	1-216-833-11	METAL CHIP	10K `	5%	1/10W						
			(EC	77: US. 0	CND/GX99)	C051	1-165-621-91	CERAMIC CHIP	0.1uF		50V
			,	,	,						
R389	1-216-837-11	METAL CHIP	22K	5%	1/10W			< CONNECTOR >			
			(EC55		(US, CND)						
R390	1-216-821-11	METAL CHIP	1K	5%	1/10W	CN051	1-819-972-11	HOLDER, CABLE	8P		
			(EC55: US, C								
R390	1-216-827-11	METAL CHIP	3.3K	5%	1/10W			< DIODE >			
11000	1 210 027 11	WEINE OIII	0.010	0 70	(GX99)			( 51052 )			
R390	1-216-841-11	METAL CHIP	47K	5%	1/10W	D051	6-500-334-01	DIODE MC2836	-T112-1		
11000	. 210 011 11	WEINE OIII			r US, CND)	D052	6-500-335-01	DIODE MC2838			
R390	1-216-845-11	METAL CHIP	100K	5%	1/10W	D052	6-500-335-01				
11000	. 210 040 11	WILLIAL OTTI			TUS, CND)	2000	0 000 000 01	2100E W02000			
			(LUUU	. LAULI I	50, 5ND)			< TRANSFORME	R S		
R392	1-216-833-11	METAL CHIP	10K	5%	1/10W			. TO STATE OF STREET			
11002	1 210 000-11	MILIAL VIIII	1010		T AEP, UK)	PT001	1-443-846-11	TRANSFORMER,	POWER		
R393	1-216-821-11	METAL CHIP	1K	5%	1/10W	٠ ١١٥٥١	1 -040 040-11	TITANUI UI IIVILA,		277-110	CND/GX99)
11030	1 210-021-11	WIL IAL OITE	111		P, UK, RU)	PT001	1-442-012-11	TRANSFORMER,	,		,
				(AE	.i , UN, NU)	- 2111001	1-440-212-11	INAMOI UNIVIEN,	I OWLN (A	LI, UK,	110)

PT REG

Ref. No. Part No. Description Remark

⚠ PT001 1-445-105-11 TRANSFORMER, POWER

(E2, E3, E51, MX, KR, AR, SP, AUS)

< RELAY >

**⚠** RY001 1-755-334-11 RELAY, AC POWER

(EC55: AEP, UK, RU/EC77: US, CND, AEP, RU/GX99)

⚠ RY002 1-755-496-11 RELAY (E2, E3, E51, MX, KR, AR, SP, AUS)

< SWITCH >

△ S001 1-786-408-11 SELECTOR, VOLTAGE (SWS-2301)

(VOLTAGE SELECTOR)(E2, E3, E51, SP)

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REG BOARD

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< CAPACITOR >

C629 1-100-566-91 CERAMIC CHIP 0.1uF 10% 25V

< IC >

IC601 8-759-231-56 IC TA7809S

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# <u>MEMO</u>

## **REVISION HISTORY**

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the top of the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision							
1.0	2007.01	New							
1.1	2007.04	Addition of EC55: Korean, Argentine, Singapore and Austral	ian models,						
		EC77: Argentine and Australian models							
		Addition of JACK board: C403, C404	(ECN-ECC16112)						
		SUPPLEMENT-1: Board changed to suffix -13 from suffix -1	12.						
			(ECN-ECC08790)						
1.2	2007.07	Addition of Canadian model for EC55							
		Board changed to suffix -14 from suffix -13							
		(EXCEPT BD90, PT (U) board)							
		PT (U) board changed to suffix -12 from suffix -11	(ECN-ECC33648)						
		Change of parts number for D121 on HI-AMP, LOW-AMP be	oard,						
		D301 on PANEL board, D618, D621, D622 on MAIN board	(ECN-ECC16861)						
		Change of part number for IC301 on PANEL board	(ECN-ECC19267)						
		Change of parts number for C622, C626, C677, C678 on MA	IN board						
			(ECN-ECC19303)						
		Change of part number for Ref. No. 504	(ECN-ECC16936)						